

AMERICAN ASSOCIATION
FOR
STUDY and PREVENTION
OF
INFANT MORTALITY

TRANSACTIONS OF THE EIGHTH ANNUAL
MEETING

RICHMOND, OCTOBER 15-17, 1917

PART I—Proceedings of the Sessions on Pediatrics
and Obstetrics

Headquarters of the Association
Medical and Chirurgical Faculty Building
211 Cathedral Street, Baltimore, Md.

PRESS OF
FRANKLIN PRINTING COMPANY
BALTIMORE
1918

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY.

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1916-1917

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President Elect, Dr. Philip Van Ingen, New York
Vice-Presidents: Mrs. Wm. Lowell Putnam, Boston, Dr. Borden S. Veeder, St. Louis
Secretary, Mr. Albert Cross, Philadelphia
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(Grouped according to years in which terms expire)

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1918

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Dr. C. L. Furbush, Philadelphia

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Dr. Helen MacMurchy, Toronto
Mr. Harold McCormick, Chicago
Dr. F. W. Schlutz, Minneapolis
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Dr. Borden Veeder, St. Louis
Dr. Wm. H. Welch, Baltimore

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Dr. T. B. Cooley, Detroit
Prof. Irving Fisher, New Haven
Dr. J. Morton Howell, Dayton
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Prof. Abby L. Marlatt, Madison
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Mrs. Duncan McDuffie, Berkeley
Dr. Lenna Meanes, Des Moines
Dr. Helen C. Putnam, Providence
Dr. J. Gurney Taylor, Milwaukee
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Dr. J. Whitridge Williams, Baltimore
Dr. Linsly R. Williams, Albany
Dr. J. H. Young, Boston

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Dr. J. N. Hurty, Indianapolis
Mr. Sherman C. Kingsley, Cleveland
Miss Harriet L. Leete, Cleveland
Dr. J. W. Schereschewsky, Washington
Dr. J. P. Sedgwick, Minneapolis
Prof. C.-E. A. Winslow, New Haven

* Deceased

Executive Secretary, Miss Gertrude B. Knipp

Executive Office, 1211 Cathedral Street, Baltimore, Maryland

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COMMITTEES

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Dr. S. McC. Hamill, Philadelphia
Dr. Henry F. Helmholtz, Chicago

Dr. J. H. Mason Knox, Jr., Baltimore
Miss Harriet L. Leete, Cleveland
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Pediatrics

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Propaganda

Chairman, Mr. George R. Bedinger, Detroit

Public School Education for Prevention of Infant Mortality

Chairman, Mrs. Henrietta W. Calvin, Bureau of Education, Washington, D. C.

Review

Chairman, Dr. S. McC. Hamill, Philadelphia

Rural Communities

Chairman, Dr. Grace L. Meigs, Children's Bureau, Washington, D. C.

Vital and Social Statistics

Chairman, Dr. Wm. H. Davis, Bureau of the Census, Washington, D. C.

Educational Leaflet and Booklet

Chairman, Dr. H. J. Gerstenberger, The Babies' Dispensary and Hospital, Cleveland

Travelling Exhibit

Chairman, Dr. Mary Sherwood, The Arundel, Baltimore

Procedure and Standards for Prenatal Work

Chairman, Dr. J. Whitridge Williams, Baltimore

Procedure and Standards for Postnatal Work

Chairman, Dr. J. H. Mason Knox, Jr., Baltimore

Local Arrangements

Chairman, Dr. McGuire Newton, Richmond

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1917-1918

President, Mrs. William Lowell Putnam

President-Elect (1919), Dr. Philip Van Ingen

Vice-Presidents, Dr. I. A. Abt, Chicago, Dr. W. S. Rankin, Raleigh

Secretary, Dr. Henry F. Helmholz, 800 Davis St., Evanston, Ill.

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Dr. Langley Porter, San Francisco

Dr. Mary Sherwood, Baltimore

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Directors

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1915

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Dr. Helen MacMurchy, Toronto

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Dr. J. L. Huntington, Boston

Prof. Abby L. Mariatt, Madison

Dr. Thomas C. McCleave, Berkeley

Mrs. Duncan McDuffie, Berkeley

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Dr. L. Emmett Holt, New York

Dr. John Howland, Baltimore

Dr. J. N. Hurty, Indianapolis

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Miss Harriet L. Leete, Cleveland

Dr. Julius C. Levy, Newark, N. J.

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Dr. J. P. Sedgwick, Minneapolis

Prof. C. E. A. Winslow, New Haven

1922

Miss Ellen C. Bobbitt, Philadelphia

Dr. Richard A. Bohl, Cleveland

Dr. Alan Brown, Toronto

Dr. H. J. Gerstenberger, Cleveland

Dr. Clifford Grulee, Chicago

Dr. S. McC. Hamill, Philadelphia

Dr. J. H. Mason Knox, Jr., Baltimore

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Dr. McGuire Newton, Richmond

Dr. Langley Porter, San Francisco

Dr. W. S. Rankin, Raleigh

Dr. L. T. Royter, Norfolk

Dr. H. L. K. Shaw, Albany

Dr. Mary Sherwood, Baltimore

Mrs. Letchworth Smith, Louisville

Dr. Philip Van Ingen, New York

Dr. Joseph S. Wall, Washington

Executive Secretary, Miss Gertrude B. Knipp

Executive Office, 1211 Cathedral Street, Baltimore, Maryland

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY

PAID UP MEMBERSHIP
Nov. 16, 1916—Sept. 30, 1917

	Life Members 1910-1916	Advance for 1917	Paid during 1917		Advance for 1918	
			Arrears for 1916	Current	Old Members	New Members
Alabama .....	..	..	..	3	..	..
California .....	..	4	..	26	..	1
Colorado .....	..	1	..	3	..	..
Connecticut .....	..	2	1	26	1	..
Delaware .....	..	..	..	1	..	..
District of Col....	..	3	..	21	..	2
Florida .....	..	..	..	2	..	..
Georgia .....	..	..	..	6	..	..
Illinois .....	..	6	..	47	..	..
Indiana .....	..	1	..	7	..	..
Iowa .....	..	..	..	10	..	..
Kansas .....	..	2	..	8	..	..
Kentucky .....	..	..	..	5	..	8
Louisiana .....	..	..	..	3	..	..
Maine .....	..	..	1	67	..	2
Maryland	5	1	1	82	..	..
Massachusetts .....	..	3	..	38	..	1
Michigan	1	5	1	19	..	..
Minnesota	1	..	..	17	..	..
Missouri	1	1	..	4	1	..
Montana .....	..	2	..	2	..	..
Nebraska .....	..	..	..	1	..	..
Nevada .....	..	..	..	5	..	..
New Hampshire .....	..	..	..	39	..	..
New Jersey .....	..	4	..	1	..	..
New Mexico .....	..	..	..	182	1	..
New York	1	5	..	2	..	..
North Carolina .....	..	..	..	1	..	..
North Dakota .....	..	..	..	75	..	1
Ohio	5	2	..	2	..	..
Oklahoma .....	..	..	..	1	..	1
Oregon .....	..	..	..	104	..	..
Pennsylvania	3	5	..	10	..	..
Rhode Island .....	..	..	..	3	1	..
South Carolina .....	..	..	..	1	..	..
Tennessee .....	..	..	1	2	..	2
Texas .....	..	..	..	4	..	..
Utah .....	..	..	..	1	..	..
Vermont .....	..	..	..	7	..	..
Virginia .....	..	..	..	3	..	..
Washington .....	..	..	..	2	..	..
West Virginia .....	..	..	..	39	..	..
Wisconsin	7	58	..	..	..	..
Canada .....	..	1	..	9	..	..
Hawaii .....	..	..	..	4	..	1
Panama .....	..	..	..	1	..	..
Philippine Is. ....	..	1	..	1	..	..
China .....	..	..	1	2	..	..
New Zealand .....	..	..	..	1	1	..
Totals	24	107	5	903	5	19
				107		
				24		

1034 Total 1917 Membership

November 16, 1916 to September 30, 1917.

In making comparisons with former annual statements, it must be remembered that this is for 10½ months, not for 12 months. The fiscal year was changed in 1916 to end September 30 instead of November 15.

Balance on hand November 16, 1916.....				\$3,472.41
Receipts	Arrears	Current	Advance	
Membership—	1916	1917	1918	
Active	\$9	\$2,159.23	\$63.17	
Affiliated	5	620.00	15.00	
Contributing		660.00		
Sustaining		350.00		
Life		200.00		
				\$4,081.40
Contributions—				
General			\$120.00	
Committee on Obstetrics.....			13.00	133.00
Transactions—Sale of printed copies—				
1910-1915			\$21.09	
1916			193.30	214.39
Exhibit—Rentals				48.04
From Journal A. M. A.—Report of Milwaukee Meeting.....				22.00
Interest on bank balances				110.60
Refunds—				
Postage on parcel post packages.....			\$1.40	
E. B. Treat & Co.—Plates for Transactions.....			2.88	4.28
Sale of leaflets—				
3100 Motherhood Folders			\$25.25	
6900 Educational Leaflets No. 1.....			43.25	
3900 Prenatal Record Forms.....			21.95	
400 Organization of Baby Saving Work.....			3.00	93.45
				4,707.16
Disbursements				\$8,179.57
Salaries				\$2,913.34
Rent of Office.....				150.00
Printing—General				404.00
Transactions of Milwaukee Meeting—				
Printing 1900 copies.....			\$1,110.71	
Distribution—Shipping			149.13	
Wrapping			11.97	
Cartons			37.50	1,309.31
Postage				\$81.45
Office Supplies				73.82
Clerical Help—				
At Milwaukee			\$60.25	
At Baltimore office			172.25	232.50
Telephone				34.26
Exhibit				52.51
Travelling Expenses				160.47
Multigraphing and Typewriting				75.62
Expressage and Telegrams.....				17.02
Miscellaneous—				
Badges and signs, drayage, news service Milwaukee meeting.....			\$86.10	
Advertising in Survey			20.00	
Posters, photos, janitor service, ice, etc.....			100.86	206.96
				6,011.26
Balance on hand September 30, 1917.....				\$2,168.31

Expenditures for the Milwaukee meeting that were paid previous to November 15, 1916, will be found in last year's statement.

Respectfully submitted,

AUSTIN McLANAHAN,
Treasurer.

American Association for Study and Prevention of Infant Mortality,
Baltimore, Md.

GENTLEMEN:—

In compliance with the request of your Executive Committee, we have made an audit of the accounts of the American Association for Study and Prevention of Infant Mortality for the period ending September 30, 1917, and find them correct, as stated in the accompanying report.

Very truly yours,

ALEXANDER BROWN & SONS.

December 24, 1917.

LOCAL COMMITTEE OF ARRANGEMENTS

The local arrangements for the meeting were under the charge of the following committee appointed by the Richmond Academy of Medicine:

Chairman, Dr. McGuire Newton.

Dr. N. Thomas Ennett	Dr. C. C. Haskell	Dr. B. M. Roseboro
Dr. Roy K. Flannagan	Dr. Paul N. Howle	Dr. M. P. Rucker
Dr. Ben H. Gray	Dr. H. N. Mason	Dr. Aubrey Straus
Dr. St. Geo. T. Grinnan	Dr. Thomas W. Murrell	Dr. Howard Urbach
Dr. V. W. Harrison	Dr. R. S. Preston	Dr. Ennion G. Williams

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EIGHTH ANNUAL MEETING
of the
AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT
MORTALITY

In response to an invitation extended through the Richmond Academy of Medicine the eighth annual meeting of the Association was held at the Hotel Jefferson, Richmond, Virginia, October 15-17, 1917, under the presidency of Dr. W. C. Woodward, of Washington.

SESSIONS

The program was arranged with special reference to war problems in connection with maternal and infant welfare. The sessions were held as follows:

Monday morning, October 15:

Pediatrics. Joint session with Committee on Obstetrics. Chairman, Dr. Clifford G. Grulee, Chicago.

Monday afternoon:

Obstetrics. Joint session with the Committee on Pediatrics. Chairman, Dr. A. B. Emmons, 2d. Absent on duty in government service, M. R. C. Acting Chairman, Mrs. Max West, Children's Bureau, Washington, D. C.

Propaganda. Chairman, Mr. George R. Bedinger, Detroit.

Monday night:

General Session. Address by the President, Dr. W. C. Woodward, Washington, followed by informal reception.

Tuesday morning, October 16.

Vital and Social Statistics. Chairman, Dr. W. H. Davis, Bureau of the Census, Washington.

Rural Communities. Joint session with Committee on Nursing and Social Work. Chairman, Dr. Grace L. Meigs, Children's Bureau, Washington, D. C.

Tuesday afternoon:

Eugenics. Joint session with Richmond Academy of Medicine. Chairman, Dr. M. F. Guyer, University of Wisconsin, Madison.

Tuesday night:

Nursing and Social Work. Chairman, Miss Minnie H. Ahrens, Supt. Infant Welfare Society, Chicago.

Wednesday morning:

Public School Education for the Prevention of Infant Mortality. Chairman, Mrs. Henrietta W. Calvin, Specialist in Home Economics, Bureau of Education, Washington, D. C.

Acting Chairman, Mrs. Alice P. Norton, Editorial Secretary for Home Economics of the Food Administration, Washington.

Through the courtesy of the Local Committee an informal reception was held at the close of the presidential address on Monday night, and an informal reception took place at the Country Club Tuesday afternoon.

The meetings of the Board of Directors were held Monday morning and Tuesday evening. The regular meeting of the Executive Committee preceded the annual meeting of the Board of Directors. The meeting for organization of the incoming Executive Committee took place on Wednesday morning.

The following committees were appointed by the President:

Nominations—

Dr. Henry F. Helmholtz, Chicago, Chairman
Miss Ellen C. Babbitt, Philadelphia
Dr. T. B. Cooley, Detroit

Resolutions—

Dr. S. McC. Hamill, Philadelphia, Chairman
Mrs. William Lowell Putnam, Boston.
Mr. George R. Bedinger, Detroit

Transactions—

Dr. S. McC. Hamill, Philadelphia, Chairman
Dr. John S. Fulton, Baltimore
Dr. Henry F. Helmholtz, Chicago
Miss Gertrude B. Knipp, Baltimore.

BUSINESS SESSIONS

The business meetings of the Association were held Tuesday and Wednesday October 17 and 18.

Attention was directed to the fact that over one-third of the directors of the Association and a large number of the members were in government service, in the Medical Reserve Corps, were connected with base hospital units abroad, or were engaged in some other form of war service.

AFFILIATED SOCIETIES

Subscription luncheons were held at the Hotel Jefferson Monday and Tuesday. Mr. George R. Bedinger, Chairman of the Committee on Propaganda presided at the former, and brief addresses were made by Dr. Ennion G. Williams, State Health Commissioner, representing the State Department of Health, Dr. Roy K. Flannagan, Health Officer of the City of Richmond, and Dr. H. H. Hibbs, Director of the recently established School of Social Work, who outlined the measures that are being carried out throughout the state in the education of the public along the lines of health and social welfare.

Dr. W. C. Woodward the President of the Association, presided at the luncheon on Tuesday and the speakers were representatives from affiliated Societies, north, east, south and west, who gave informal reports of the work of their respective organizations. The remaining reports were presented at the round table conference held on Wednesday morning.

ELECTION OF DIRECTORS

The following Directors whose terms had expired were re-elected for a term of five years:

Miss Ellen C. Babbitt, Philadelphia	Dr. W. S. Rankin, Raleigh
Dr. H. J. Gerstenberger, Cleveland	Dr. H. L. K. Shaw, Albany
Dr. S. McC. Hamill, Philadelphia	Dr. Mary Sherwood, Baltimore
Dr. J. H. Mason Knox, Jr., Baltimore	Mrs. Letchworth Smith, Louisville
Miss Julia C. Lathrop, Washington	Dr. Philip Van Ingen, New York City

The following new Directors were elected for the terms indicated:

FIVE YEARS

Dr. Richard A. Bolt, Cleveland	Dr. McGuire Newton, Richmond
Dr. Alan Brown, Toronto	Dr. L. T. Royster, Norfolk
Dr. Clifford G. Grulee, Chicago	Dr. Joseph S. Wall, Washington

FOUR YEARS

To fill the vacancy caused by the death of Dr. Henry L. Coit :
Dr. Julius C. Levy, Newark

ONE YEAR

Mrs. James L. Houghteling, Chicago.

OFFICERS FOR 1916

Being in active service, Dr. Philip Van Ingen, Major M. R. C., President-elect for 1917-1918, was unable to assume the duties of that office, and presented his resignation which was accepted with regret. The Board then elected Dr. Van Ingen President-elect for 1918-1919.

The following officers for the term beginning October 17, 1917, were also elected :

President, Mrs. William Lowell Putnam, Boston
First Vice-President, Dr. I. A. Abt, Chicago
Second Vice-President, Dr. W. S. Rankin, Raleigh
Secretary, Dr. Henry F. Helmholz, Chicago.
Treasurer, Mr. Austin McLanahan, Baltimore
Executive Secretary, Miss Gertrude B. Knipp, Baltimore

The following resolutions were reported favorably by the Committee and were unanimously adopted by the Association :

Resolved that the President of the Association be authorized to appoint a committee to formulate courses in prenatal, maternal, child and infant care, which may be used by teachers in

1. Home economics in colleges, Universities and normal schools
2. Graded schools.
3. Clubs, classes, etc. (Little Mother's Leagues, Mother's Clubs, etc.)

Resolved further, that the committee be empowered to print these outlines for distribution, as an emergency measure.

Whereas the City of Richmond and her citizens were willing to accept the responsibility of planning for the Eighth Annual Meeting of the Association on a few weeks' notice, and

Whereas, this responsibility has been so splendidly met and Richmond hospitality so generously bestowed,

Therefore, Be it Resolved, that the thanks and appreciation of the Association be expressed to

The Mayor of the City of Richmond

The State and City Departments of Health that have enriched us by their contributions

The Richmond Academy of Medicine.

The women of Richmond, who have given us of their incomparable hospitality, and finally and especially to

The Chairman and members of the Local Committee on Arrangements, which has been primarily responsible for the various pleasures and privileges we have been permitted to enjoy.

Whereas the emergencies of war have made it impossible for the chairmen of some of the section committees to preside at the meetings, and

Whereas, in each instance we have found very willing substitutes to act in their stead, sometimes at considerable inconvenience to themselves,

Therefore, be it Resolved, that the thanks and appreciation of the Association be extended to these substitute chairmen.

Mrs. Putnam, the incoming President, was introduced to the Association at the general session Wednesday morning.

The report of the Committee in charge of the registration table showed that twenty-three states, the District of Columbia and Canada were represented at the meeting.

PEDIATRICS

JOINT SESSION WITH THE COMMITTEE ON OBSTETRICS

Monday, October 15, 1917

COMMITTEE

DR. CLIFFORD G. GRULEE, Chicago, Chairman

DR. HENRY F. HELMHOLZ, Chicago

DR. S. McC. HAMILL, Philadelphia

DR. FRITZ TALBOT, Boston

TOPICS

What the Pediatrician Can Do to Reduce the Mortality in the First month of Life

How the Pediatrician and the Obstetrician Can Cooperate

Disease Conditions in Older Babies That Can be Attributed to Prenatal Influence

Care of Children of Pre-school Age

RECOMMENDATIONS OF THE COMMITTEE

The discussion centered about:

- A. The care and diseases of the new born and the need for more intensive study of the subject.

Under this it was recommended:

1. That all maternity hospitals and all general hospitals having maternity wards, especially those in connection with medical schools, be urged to establish pediatric departments under the supervision of which all infants should be placed immediately after birth.

2. That the pediatric departments of all medical schools be urged to devote more instruction to the care and diseases of the new-born.

3. That the closest cooperation be urged between the obstetrician and pediatrician in the study of prenatal conditions which may influence the life and health of the infant in utero and after birth.

- B. The need for better supervision of the health of children of pre-school age.

For the accomplishment of this it was recommended:

1. That as far as possible (to meet the immediate need) the work of the infant welfare stations be extended to cover this period of life.

2. That local child welfare societies, hospitals and medical schools be urged to establish especial departments for the care of children of from two to six years.

WHAT THE PEDIATRICIAN CAN DO TO REDUCE THE MORTALITY IN THE FIRST MONTH OF LIFE

GUSTAVE LIPPMANN, M. D., St. Louis

The Philadelphia meeting of this Association in 1915 clearly showed the work that was being done by the obstetrician, by the teacher of obstetrics and the visiting nurse. When I perused the papers that were read and the discussion that followed them, I felt instinctively that the time was approaching rapidly when the pediatrician also would be called upon to increase his endeavors in his line of work. Everybody appreciates the fact, that the pediatrician is conscientiously striving to fulfill what is expected of him. Everybody knows that he has been the most important factor in reducing infant mortality to a degree that could hardly have been hoped for, but the one point that is ever present is that the mortality during the first month of life was not diminished in the same proportion. The mortality during the first month of life is still far too high, and so it is imperative that at this meeting and especially at this time of stress and distress this association should endeavor to find the cause for this deplorable condition and after having gone to the root of it, discuss the necessary means to overcome it.

The topic that was assigned to me is "what the pediatrician can do to reduce the infant mortality during the first month of life." But is the pediatrician only a practicing physician, only a teacher in his speciality, most assuredly he is first and foremost a member of the body politic, a member of the community, a citizen of the country, and as such it is his duty to exert all the influence that is at his command in the interest of the welfare of his community and in a larger sense of his country.

We who are assembled here recognize the truth of the statement that the mortality in infancy especially the mortality during the first few weeks of life increases in reverse proportion to the earning power of the head of the family. It is not necessary at this time to recall the investigations at Montclair and Johnstown with their conclusive evidence. But it is not sufficient that we who are conversant with the investigations that were carried on in these and many other localities, do feel convinced that the public at large or even the members of our

profession appreciate the utter seriousness of the conditions brought to light by these investigations. Do the mothers of this country who are living in luxury or even in moderate circumstances imagine that such frightful situations exist, that such occurrences really take place right before their eyes? We know that a mother who during pregnancy is used up by long hours and strenuous work, is rarely able to bring a viable child into the world, but are her well-to-do neighbors apprised of this fact? The public at large must be made to know what we have realized so long, that the pediatrician together with the obstetrician, visiting nurse and social service worker must make it his solemn duty to spread the gospel that in every line of employment, to have the right to exist, one must pay the worker a sufficient wage to insure him a decent living and the chance to raise a healthy family. This is not a question between classes, it is a question that touches the core of our body politic. This situation is economically extravagant and morally inexcusable. We must assist with all the influence at our command in trying to reach the goal where the fruits of the industries are more equally distributed, where a living wage is paid to the worker.

Our entrance into the war has not changed this problem. It has not been shelved by the higher wages paid to labor, it has become more pressing from day to day, since the increase in wages has not kept step with the increase in the price of everything necessary to supply the family. And so economic demands have forced and are forcing today many expectant mothers to assist with the fruit of their manual labor in the support of the household; we must also reckon with the inborn greed of the human race, that draws many a mother into the factory, lured there by the growing demand for labor and the higher wages paid.

For this reason we must work to arouse the necessary sentiment and together with the right-minded approach our state governments, approach the legislative bodies at Washington and prove to our representatives that the time has come for a more complete protection of motherhood and infancy. Europe has shown us the way. Our legislatures should at their earliest convenience pass laws to forbid or restrict work in the later weeks of pregnancy, to pay a subsidy during this time or even give a monetary reward to the mother who is willing to take full care of her offspring and feed it at the breast.

HOW THE PEDIATRICIAN AND OBSTETRICIAN CAN CO-OPERATE

JENNINGS C. LITZENBERG, M. D., Minneapolis

Infant welfare begins with conception and during the whole of gestation, prenatal care is so closely linked with maternal welfare that it is wholly the obstetrician's problem; nevertheless he cannot solve these questions alone for there are immediate and remote effects of intra-uterine life which are only discovered by the pediatricist after the baby has passed from the care of the obstetrician, so he is unable to form his ideas of prenatal care independently without the co-operation of the pediatrician.

On the other hand, the children's specialist cannot give the infant his best care without the knowledge of the mother that the obstetrician can give him as to her pregnancy, labor and general condition of health. And in the puerperium, where both have an active part, the closest co-operation is necessary.

Even in this day of increasing specialization the interdependence of the various branches of medicine is clearly recognized.

The specialist by the very fact of his superior capabilities in his own line is not satisfied with his limited knowledge when a problem in another field confronts him and he at once feels the need of counsel with one as well trained in that branch as he is in his own; and this is peculiarly true when specialists meet upon the common ground of public service.

In those specialties which are sharply demarked this need is felt to some extent, but in those branches, between which the dividing line is drawn with difficulty there is a sort of no man's land which may be cleared by both; a twilight zone, as it were, in which the branches of medicine on either side may clash or co-operate.

So representatives of pediatrics and obstetrics meet today to discuss questions of common interest, to dissipate the twilight with the bright sun of mutual understanding and to co-operate and not to clash.

We meet on the common ground of infant welfare.

The duty of the obstetrician is twofold, for he is responsible not only for the successful piloting of the mother through a sea

beset with dangers to her, but he is, so far as our present knowledge will permit, to be held accountable for ushering a healthy baby into the world so that the pediatricist may begin with a normal child instead of a weakling. Obstetricians have been too prone to look upon the management of pregnancy as "antepartum care" *i. e.*, referring only to the mother, but the propaganda for infant welfare brought more clearly before us "prenatal care" or the welfare of the fetus.

In general terms a healthy mother usually means a healthy child and the care which is taken to keep the mother in good physical condition will do the same for the child, but if we are content with this general fact we shall fall short of our entire duty to the baby.

Much must yet be learned about the effects upon the fetus of certain measures taken for the mother's welfare such as diet, medication, etc., in other words a burden of research is laid upon us obstetricians to learn more about the growth, development and metabolism of the fetus and the effects of certain diet, diseases and physical conditions of the mother upon her newborn child.

These are difficult problems, but if we are to do our whole duty in this work and deliver to the pediatricist a healthy normal baby we must not only follow the well established principles of prenatal care, but we must endeavor to improve upon them by investigation.

We have not met with the best of success in impressing upon the laity the absolute necessity of careful supervision of the pregnant woman for her own sake, and I fear that it is not even sufficiently fixed in the minds of the profession but the added stimulus of anxiety for the baby may help us, for women will often follow measures for their babies which they neglect for themselves.

It is not my purpose to rehash the details of prenatal care which have been so thoroughly threshed out by this society, but I do wish to emphasize a fact which cannot be too often repeated that it is not sufficient to examine the urine and take the blood pressure and measure the pelvis of a pregnant woman, but if we are really to succeed in our part of this problem, it means painstaking investigations into every detail of the mother's health, and further study of influences which may affect the child in utero.

This is primarily the obstetrician's problem for it is of course obvious that maternal and fetal care cannot be divorced; however, the pediatricist can render very valuable aid.

It is equally clear that after the puerperium the problem is one almost entirely for the pediatrician, but he, too, can do better work if the obstetrician co-operates.

Unfortunately, there is an hiatus between "prenatal care" and "infant welfare," viz., the puerperium during which the obstetrician usually has charge of the baby.

The best interest of the new born baby cannot be conserved if the obstetrician and pediatrician work independently, however well each may do his own work; there must be a co-ordination of the two agencies which shall leave no gap.

The pediatrician and his infant welfare workers should know in advance of every approaching confinement and should have a record of all necessary data before parturition so that they can go on where the obstetrician and his prenatal workers leave off without waiting for the baby to be taken sick through disease or improper feeding.

I take it that we all believe that prophylaxis is the greatest watchword in infant welfare, therefore the pediatrician should be notified as soon as the baby is born so that by proper instruction and watchful care the baby may be kept healthy or disease detected at the earliest possible moment.

This may be done by co-operation between obstetrics and pediatrics or through a central agency where the complete data of pregnancy and parturition are accessible, a maternal and baby center where the data of pregnancy, parturition and infant care are accessible to both.

It goes without saying that the pediatrician starts with much better prospects of success if he have the help of the obstetrician's records.

But there is still a better way of co-operating.

You will note that I have advocated that the pediatricist be immediately notified of every birth so that he may begin where the obstetrician leaves off. I have suggested this not that he may hold himself in readiness for any emergency that may arise as to the welfare of the

baby, but I propose that the pediatricist take immediate and full charge of the infant from birth.

I believe the pediatrician should control the newborn clinic both in the maternity hospitals and outpatient or district service.

While I realize that this is somewhat revolutionary. I am convinced that it is more logical than the present method of obstetric control of the newborn.

My reasons for advocating this change when it was made in the University of Minnesota hospitals were set forth in a paper read before the American Association of Teachers of Pediatrics at Detroit in 1916 in which I argued that every teaching hospital to live up successfully to the best ideals should fulfil three fundamental requirements. Inasmuch as these requisites apply equally well to all charitable medical work, whether done under teaching conditions or not, I shall with your permission repeat some of these arguments in my advocacy of the proposition that the best way to do away with the hiatus between "prenatal care" and "infant welfare" is to turn the care of the newborn over to the pediatrician immediately after birth.

But why should we break away from our time honored custom of the obstetrician caring for the newborn?

Such an innovation should only be made if it will insure better care of the baby, stimulate increased research and, if the work be in connection with a medical school, insure better clinical teaching.

I think we will have no difficulty in convincing the pediatrician that he can take better care of the newborn than the obstetrician—he admits it; but the obstetrician, because he always has had this responsibility, may find it hard to admit that the baby is only a by-product of obstetrics.

The pediatricist by special training, methods of study and habits of thought is better fitted to attack the problems of the newborn than is the obstetrician. By personal inclination and bent of mind the pediatricist's interest is in the baby and the obstetrician's is in the woman. The pediatrician has by training desires and experience shaped his mind to think in terms of the infant and the obstetrician in terms of the woman.

Pediatrics is essentially a medical and obstetrics a surgical subject.

entire lack of evidence that this was in any way a factor excepting as it perpetuates and emphasizes any defects or weaknesses in the families in which this inbreeding occurs.

Heredity is the source of many of these defects especially in such conditions as cretinism, congenital family idiocy, epilepsy, etc.

Illegitimacy is again a factor, for the children of such a union have at least one weak and often one vicious and diseased parent, and from such a union healthy children should rarely be expected.

The influence of alcoholism of the parent has been scientifically studied and the literature on the subject has been collected by Dr. Charles R. Stockard¹ Professor of Anatomy in the Cornell University Medical School from whose articles I shall quote freely.

Our evidence consists of observations in man and also experimental work on animals. I will quote first some of the observations in man and reports of autopsies in man, reviewing briefly the experimental work afterward.

It seems well established that alcoholism of one or both parents increases the number of still-births, the number of defective offspring; and of the female offspring that live and marry very few (2.6 per cent)² are said to be able to nurse their babies.

That alcoholism affects the mortality of the offspring seems evident from the following statistics of Dr. Jacquet³ member of the Conseil d'Hygiene and de Salubrité of the Department of the Seine in France. He collected statistics of the infant mortality among families of moderate drinkers, of decided drinkers, and of very decided drinkers.

The 305 children of 141 families of moderate drinkers showed a mortality of 18.78 per cent.

The 248 children of 108 families of decided drinkers showed a mortality of 26 per cent.

The 326 children of 147 families of very decided drinkers showed a mortality of 55.47 per cent.

Sullivan⁴ who made an important study in an English prison, found that of 600 children born to 120 women of marked

(1) Stockard, *Archives of Internal Medicine*, X-15-12. Vol. 10. No. 4. p. 369. Stockard, *Interstate Med. Jour.* June, 1916, Vol. 23, p. 385.

(2) Bunge G., *Alcoholic Poisoning and Degeneration*, *The Quarterly Jour. of Inebriety*, 1906, xxviii, L.

(3) Jacquet, *Jour. A. M. A.* LXIII, p. 335, 25-VII-14.

(4) Sullivan, *Jour. Mental Sc.* 1899, XIV, 489.

alcoholic habit, 335 or 56 per cent were still-born or died within the first two years. Of 138 children of 28 relatives of these women where both husband and wife were sober, only 24 per cent died during the first two years.

Moreover, in these alcoholic families the mortality is least in the first born and increases with the later children, thus in the first born the average of 80 cases was 6.2, while in 93 cases of the 6th to the 10th child of the family the mortality was 17.27 per cent. Of seven cases of drunkenness during conception six children died in convulsions after a few months and the seventh was still-born.

Schweighofer reported an interesting case of a normal woman who married a sober man and had three sound children. The husband died and she married a drunkard and had three children by him. Of these one had infantilism, two became drunkards and two tuberculous. By a third husband this woman again had normal children.

Martin of the Salpatrière in Paris investigated 83 epileptic girls and found that 60 had alcoholic parents while in the other 23 alcoholism was doubtful or absent.

There is much more evidence of this same sort and little evidence to the contrary. Scientific investigation in the laboratory furnishes corroborative evidence.

Nicloux and Renault⁵ have shown that alcohol has an affinity for the sexual organs. They found that in the testicle the amount in proportion to that in the blood was as two to three, while in the ovary in proportion to that in the blood it was as two to five. Moreover, Bertholet has observed partial atrophy of the testes in the majority of 75 chronic alcoholics; also an atrophy of the ovary and ova in female alcoholics.

Experiments on different sorts of lower animals have been made by several observers, on dogs, rabbits, guinea pigs, and chickens. The most elaborate and conclusive of these are reported by Stockard. He subjected the animals to inhalations of alcohol and found that

(5) Nicloux. *Passage de l'Alcool ungere de la mere et de le pere. l'Obstetrique*, 1900, XCIX.

he could affect the off-spring by alcoholizing either the male or female, but the most marked results were obtained when both were exposed.

1. In 95 matings of an alcoholic male and normal female:

38 gave no result or early abortion.

10 gave still-birth litters.

47 gave litters of 91 pigs of which 39 died soon after birth.

Thus the total result of 95 matings was 52 guinea pigs.

2. In 43 matings of a normal male and alcoholic female:

11 gave no result or early abortion.

7 had still-birth litters.

25 had living litters of 52 guinea pigs of which 26 died soon after birth.

Thus the total result of 43 matings was 26 guinea pigs.

3. In 42 matings of alcoholic males with alcoholic females:

20 gave no result or very early abortion.

4 had still-born litters.

18 had living litters of 27 guinea pigs of which 12 died soon after birth.

Thus the total result of 42 matings was 15 guinea pigs.

In contrast with these findings:

123 control matings gave 26 negative results or early abortions.

2 still-born litters, and 178 living guinea pigs of which 24 died soon after birth.

Thus the end result from 123 matings was 154 guinea pigs.

Stockard finds that the surviving young of alcoholic parents are often defective, subject to convulsions and develop poorly.

Perhaps the most interesting of Stockard's findings is in the ultimate result on the progeny of these guinea pigs for several generations. All the handicaps transmitted to the first generation of pigs by alcoholic parents continue to be transmitted to off-spring for several generations, although none of the descendants of the original pigs are alcoholic.

Recent work by Raymond Pearl in alcoholizing chickens, while corresponding in some respects to that of Stockard, leads him to somewhat different conclusions.

This work of Stockard and other laboratory workers and the observations quoted from clinicians would lead us to believe that cases of retarded development in older children, nervous and irritable conditions, epilepsy, and the various forms of infantilism and idiocy, are in many cases the result of alcoholism in one or both of the parents before conception or possibly by alcoholism in the grandparents or great grand-parents.

DISCUSSION.

The Chairman: It is peculiarly fitting at this time, when they are having so much trouble in France and other warring countries in looking after their babies, that we should meet to discuss the saving of infant life, a matter of such paramount importance. The morbidity in the first month of life exceeds that at any other time, and only by reducing the mortality of the new-born can we materially reduce infant mortality.

So we are taking up the subject today from the pediatric and obstetrical standpoint. It is desirable that there should be co-operation between the obstetrician and the pediatrician at this period of life, a thing which hitherto has not been as definite as we should like. Therefore we will discuss this problem with, we hope, the end in view of making some recommendations which may be of value to us during the present conflict.

It is wise that we prepare to look after our babies when it is possible to do so, and not wait for several years, until necessity forces us to take up a problem so important and so vital to the well being of the country.

The discussion will be opened by Dr. McGuire Newton, of Richmond.

Dr. Newton: Before going on with the discussion, I want to bid you welcome to Richmond. Later on you will be formally welcomed by others better able to do it than I, but for the present and until that time comes, I want you to feel that we are yours; we want you to consider us as your own and to know that what we have is open to you and that we hope you will use it freely.

The interesting paper that Dr. Freeman has just closed is both timely and valuable. I think perhaps it is unfortunate for us that it was not read earlier to us in this section of the country; perhaps if it had been it would have made us more reconciled to the wave of dryness that has submerged us and is going on its way elsewhere; I am sure there can be no more potent argument in its favor than what has just been presented by Dr. Freeman, and that it needs no discussion at my hands.

Dr. Litzenberg most forcibly emphasized the duty of the pediatrician to take charge of the child early—or the duty of the obstetrician to relinquish the baby

to the pediatrician as early as possible. We all are convinced of the importance of this, and it has been recognized here in Virginia and in some institutions of the South, inasmuch as it is the duty of the obstetrician in the medical college in Virginia to notify the pediatrician on the staff of the teaching hospital, the professor of pediatrics, of all births whenever they occur, and immediately those babies belong to the pediatrician and he is responsible for them. Through this arrangement the student will be better impressed with his duty to the infant than he has been in the past with the old method. We know the baby is overlooked, that the mother is the important patient, or the only patient, in the eyes of the obstetrician, and those of us who have followed the obstetrician have been forcibly made aware of the fact that no attention has been paid, or very little attention, to the baby, until the baby develops trouble that might have been prevented by the attention that should have been given earlier. I am glad then to be able to tell you that we have recognized the importance of the new-born clinic in pediatrics, and are developing it, and from this time on all our babies will belong to the pediatrician.

To reduce further the mortality during the first month, as outlined by Dr. Lippmann, is of course a part of our civic duty. That is, of course, a most important thought, because pediatricians are not all connected with medical colleges. Very few of those who specialize in pediatrics have an opportunity to teach medical students, but every man who has anything to do with the care of children has a big school. The pupils in his school are the mothers and fathers in his community, and it is in season and out of season that these pupils are to be instructed, first in prenatal care and next in the care of the baby; and if the pediatrician will recognize that fact and profit by it I am convinced that there will be a marked reduction in mortality during the first month. I think there is nothing more important than that; next in importance is the education of the medical student. The medical student, in the future, in the schools that have new-born clinics will recognize the new-born infant as a patient, and will realize that it requires attention. Of course, where there are both obstetricians and pediatricians they may co-operate—or they may clash—but in any case the communities where there are the two specialties are few. Most of the babies are now and probably for years to come will be born under the care of the general practitioner, and will be looked after by general practitioners; and by the education of the general practitioner in the medical school and of the intelligent mother, much will be accomplished. And another important factor I believe is the effort of the general practitioner to gain the confidence of the mother; let her know the baby is going to be well cared for, that the practitioner is capable of giving it the attention it ought to have, and she is going to be better satisfied, and going to give better milk to her baby, and the chance for the baby to have its natural food will be greatly enhanced.

The Chairman: I will call on Dr. M. P. Rucker, of Richmond, to discuss Dr. Litzenberg's paper.

Dr. Rucker: Unfortunately, on account of the change in the program, I was not present to hear the whole of Dr. Litzenberg's paper. It is one that is very timely, and I wanted to get from it a great deal of useful information for my own work. Of course, theoretically, we recognize that the baby belongs to the pediatrician as soon as it is born, but practically, in out-patient work especially, and in private work, that is not practicable, or at least it is not the practice, and what I wanted to learn was when—outside of a teaching hospital—the obstetrician should relinquish his care of the baby and when the pediatrician should step in.

In our work at the out-patient part of the Medical College of Virginia, we have no trouble whatever in the prenatal care, thanks to our visiting nurses, who keep the patients coming, but we do have a little trouble following the babies afterwards. We have the students measure the babies at birth and often weigh and measure them when they are discharged, and the record is put on file; they get their discharge on the tenth day usually, and we instruct the mother to bring the baby back so that we can see both the baby and the mother at the dispensary and see what kind of result the mother has had obstetrically and turn the baby over to the baby department, but they very seldom come back. I would like to ask Dr. Litzenberg if they have that difficulty in Minneapolis—what do you do with the out-patient babies?

In regard to what Dr. Newton said about obstetricians not paying attention to the baby till something is the matter with it, I would just like to remind him that all this infantile care was really started by a Paris obstetrician in 1892. Some of us may be a little derelict, but we certainly claim a little credit for starting the work at any rate.

The Chairman: The papers are now open for general discussion.

Dr. E. A. Hines, Secretary South Carolina Medical Association, Seneca, S. C.: Last year I became interested in the question of infant mortality in South Carolina and in the South generally. I made some investigation of the literature both at the Children's Bureau in Washington and of this Association and the Surgeon General's Library, and found very, very few articles written from the Southern standpoint. After that I became intensely interested in the idea that we might do something in the Southern states, especially in the state of South Carolina in regard to this great problem. So, as a member of the State Board of Health, I investigated the number of deaths we had had in one year. Under one year I found 5,624, still births 2,890, and what surprised me, and to my mind possibly has some significance, 2,200 of these babies had no doctor at all. I do not know, but I take it that probably the majority of these were under one month; 732 were premature, 1,039 died of intestinal diseases. Total births, 44,443. Total deaths of all years, 21,946. So you see

we had 25 per cent practically of total deaths, and these babies under one year, a large majority probably under one month. As Secretary of the State Medical Society I was able to induce the Scientific Committee this year to make the subject of infant mortality the chief subject on our program, which had not been done for the sixty-eight years of the Association's existence. In looking over its records I was unable to find any papers bearing directly on this very important matter. Coming into the office are the programs of almost all the State societies in the Union, so that I can see that much the same can be said about most of the Medical Societies. I have made up my mind to influence our State Board of Health and also the State Medical Society to take active steps along this particular line. A few months ago I induced the State Board of Health to send all its members throughout the state to speak on this problem, especially as to the war feature of it. Tonight I shall wire the District Society, which meets in the center of military operations in South Carolina, and with a military program, much of the gist of this meeting here today. I believe that through our Medical Societies we shall be able to influence the great mass of the general practitioners who have to deal so largely with this problem.

Dr. Lyman A. Jones, Boston: There is one suggestion, about the relationship of obstetrician and pediatrician which interested me in that it applies to large communities where you have physicians practicing both specialties, and it made me ask what would be the situation in the many communities where, as in a large proportion of our population and a large number of our States—it holds even in Massachusetts—the population is mainly rural in character. There are towns in Massachusetts with no physician, there are others with only one. In order to meet the problem and get results that we are seeking, may it not be necessary to carry a propaganda of education among the physicians themselves? In these rural communities you cannot have an obstetrician and a pediatrician and all the specialists. It will be necessary to raise the standard of the physicians practicing in the community and supplement their efforts by the aid of well trained public health workers.

Dr. Herman Schwarz, New York: It is not an easy matter to reduce the mortality among the new-born. That has been a very pressing problem in New York for fifteen years. It has seemed to me that it is the institutions and the general practitioner who are the most interested in this problem. The pediatrician knows a good deal about how to deal with it when he is called in early enough—that is, at the birth of the child, or even before. It has been amazing to me that obstetric clinics, or maternity and pediatric clinics have not been more commonly brought into existence. The institution I am connected with in New York was alone in this field for many years. Not so much the milk station or the diet kitchen but the obstetric clinic is what is needed, the milk station and diet kitchen being simply part of it.

The knowledge of feeding of the new-born, and of the physiology and diseases of the new-born is woefully small. Much can be accomplished without more inspection or organization if we will only concentrate a bit more on work with the new-born. These children should be weighed and looked after every day. In our clinic we have been concentrating on the child under one year for fifteen years, and we have been considering about concentrating the work of the institution on the first month or six weeks. I am sure our new-born mortality will be much reduced if we do. Concentration—daily observation both in the institution and by private practitioner and obstetrician, will help greatly.

Dr. Fritz B. Talbot, Boston: Each of the speakers has brought out that education is necessary. And I wonder how many of those teachers who are present here spend any time, or at any rate more than a few cursory lectures, on the new-born infant, with their students. I think the teachers might teach more.

And I think the medical schools might make their graduate teaching easier for the general practitioners who are in their neighborhood to get, and in that manner help to reduce the mortality in the first month of life.

Then, in the third place, it goes without saying that if the obstetrician and his assistants took better care the infant mortality would be decreased. Now, by that I mean the nurses as well as the doctors. No one has said anything about what the nurses can do, and yet it is careless nursing in many instances that is responsible for the infant mortality in the first two or three weeks of life. There again, education is very necessary, and if the doctors will not come to teach the nurses on their own hook, the nurses should make them come.

The teaching in obstetrical hospitals concerning the care of the new-born infant is woefully negligent, and the knowledge that many of such nurses have when they come out is only modified by their experience and experiments on new-born infants in their practice. That is a phase of infant mortality that to my mind is extremely serious and should be taken care of. Of course, in the large cities we have the problem fairly well taken care of in the hospital. In the smaller cities and the rural communities, the problem is quite different and I think it will have to be tackled from the educational point of view.

Dr. Julius C. Levy, Department of Health, Newark: If the practices that Dr. Litzenberg has told us take place in Minnesota and that we have heard take place in Virginia, reach beyond the paper stage in other places, I think great results will come.

I would suggest that this section recommend to the directors that this be made one of the special features of propaganda for the coming year, hospitals being urged to place the care of infants in the hands of the pediatrician. In our town the obstetrician does not feel inclined to relinquish the care of the infant; he feels that the pediatrician would conflict with his work with the mother. Dr. Litzenberg well pointed out that the real reason is the differ-

scale of prices from the patients, but on the full sum being paid. This is only twenty-five dollars, and I believe that the clinic can be made self-supporting for that. An interesting point is that we have had more patients registered at the eight clinics held since we re-opened them on this plan than we had with the sliding scale of prices. That shows that we are getting the class of patients—the class whose needs we wanted to meet.

Third, Dr. Lippmann in his paper spoke of only the unmarried men being drafted; that is not quite the case. It is the men who have dependents who are not being drafted; otherwise married men are going just like the unmarried. I think we must bear that in mind.

Fourth, Another thing is the question of mortality in the first month. Most milk stations get babies only after the first month. The statistics sound beautiful, but are unintentionally absolutely misleading—and I believe if the money put so generously by the public into milk stations were put into work for the children before birth it would produce infinitely better results for the amount expended.

Dr. Joseph S. Wall, Washington, D. C.: We have heard about educating better pediatricians while they are students. I think we might educate the doctors already out of the colleges, as one of the Carolinas did last year, by sending for lecturers to come and teach the doctors. The students can be taught according to Dr. Litzenberg's plan, by having an infant welfare center as part of the college. If every teaching hospital asked for one of these in the college hospital it would be put there. It has been in Washington.

I take exception to what Dr. Litzenberg said as to his being "in the camp of the enemy." He is more our ally than any obstetrician I know. Obstetrics is a broad subject. It is not merely delivering a woman. Obstetrics should begin with pregnancy and go on till the baby is able to eat ordinary food and the mother is able to have another baby if she wants to. That statement was made in the Philadelphia meeting and we have utilized it in Washington in carrying on the fight to get them where they belong.

The Chairman: Will Dr. Lippmann close this discussion?

Dr. Lippmann: I am glad to see South Carolina starting as the first state to take care that the State Medical Societies do the work necessary. You see papers about surgery and other specialties, but never a question on infant welfare reported. I had two men come to the city who never knew there was an infant welfare station or a prenatal clinic in the State. I wish all doctors would see to it that state medical societies sometimes met in larger cities.

Mrs. Putnam spoke of the station in Boston. I am sorry no one from St. Louis is here. I have noticed the number of twenty-five dollar patients they have there. It is increasing so that the practitioners in the middle class districts are complaining that the obstetrical cases are disappearing altogether from their practice. This is most important, for we must realize that hitherto the middle class is the only class that could not get proper attention. The rich man and the pauper get attention and the middle class be—satisfied with what it gets!

Dr. Litzenberg: Mr. Chairman—and allies! One doctor asked, What shall we do in the case of private practice and in outpatient work in obstetrics? I have answered that question in my own private work. I have turned this work over to the pediatricians so long that now if a baby sneezes I am scared to death. I practice what I preach in private practice and in my clinic. The patients from the University Hospital are instructed to return to the dispensary for examination of the mother and baby, and if the mother does not bring the baby the nurse goes out and gets her so our post partum clinic and post natal clinic apply to mother and baby. I believe what I have said should apply in private practice, and if the pediatricists from our city, so well known to you, were here, they would testify that I practice what I preach.

The question of still births? Better obstetrics. Premature births? Better obstetrics. That is the answer. Many of the premature babies need not be premature. Some of them are inevitably premature, but good obstetrics will save many of them, and if turned over to the pediatrician immediately after birth then more of them will be saved.

As to rural conditions, I attempted to answer that question in my paper by saying that improvement of the department of obstetrics in teaching hospitals and improvement of the pediatrics in teaching hospitals would turn out better practitioners. Of course it means we must have better educated men. The thing must be solved at the fountain head, and that is the teaching institution. That is what I am talking about—that we should co-operate, and should send out men who have been taught to co-operate, men imbued with the idea that obstetrics is obstetrics and pediatrics is pediatrics. The cursory teaching of new-born work would be done away with by this method, because the pediatrician does not give such cursory teaching. It is a problem for him, a thing he is interested in. We have tried it out so we know.

The object of my paper, I would answer Dr. Levy, is just that this shall become something more than a paper propaganda, and I hope all the schools may take it up, and I am sure when the obstetrician finds out how much more time he has for his real work he will be only too glad to do it.

The result will be better obstetrics and better pediatrics, yes, but the thing we are really aiming at is a better general practitioner because he will have been taught by better obstetricians and better pediatricians.

As to midwives.....!

The Chairman: Will Dr. Freeman close the discussion on his paper?

Dr. Freeman: I have nothing to say.

The Chairman: Dr. Levy, do you wish to make a motion?

Dr. Levy: I move that a committee be appointed to urge obstetricians and hospitals in the United States to adopt the procedure of placing all new-born infants in charge of a pediatrician and that an educational campaign be carried on for this purpose.

Dr. Wall: I second the motion.

The Chairman: Is there any discussion of this motion?

The Chairman put the motion, and it was carried.

CARE OF CHILDREN OF PRE-SCHOOL AGE

LAWRENCE T. ROYSTER, M. D., Norfolk, Va.

This symposium has been arranged, as I understand it, for the purpose of devising such a plan of co-operation among child welfare interests, as will prevent the large mortality and morbidity among infants and children which is a recognized accompaniment of war. In this paper I have endeavored to outline briefly a plan which embodies the lessons taught by the experience of those nations which entered the war before we did, without detailing their experiences or efforts, since this has been well done by those better versed than I.

Supervising or directing the life of our "citizens in the making" by government or private philanthropic agencies is a comparatively new phase of sociological endeavor. The Federal Government and scientific societies have for a long time protected our forests and conserved our timber lands for the use of future generations. They have studied the diseases of stock, cattle, etc., as regards both prevention and cure, but there seems to have been a disinclination to interfere where the welfare of our future citizens is concerned. This disinclination appears to be the result of indifference on the one hand and the lack of appreciation of the importance of such work on the other. Paternalism has been a much overworked "bogy" in opposing such supervision, even though a mildly paternalistic suggestion may redound to the progress and betterment of the race and the production of a virile citizenship. However, the importance and necessity of such supervision is at last recognized by the public at large, and in some instances is even dawning upon our legislative bodies.

The first important step in this direction was made through the agency of "Milk Stations," from these "Infant Welfare" clinics have developed. These were the first steps made to prevent infant mortality by educating mothers in the proper care of infants. The next real advance was made when medical school inspection was instituted. This is especially beneficial when augmented by the district visiting school nurse. How much good has been accomplished by this means is impossible to calculate. It seems quite strange, however, that during these developments no provision has been made for, and little thought given to that period of a child's life from infancy to its entrance into

school. This has been called "the pre-school age." It is in many respects the most important period of growth and development, and yet so little attention has been paid to it that it has been aptly termed "the neglected age."

I do not wish to underestimate the importance of any period of child life, but a moment's reflection will show us that in the broadest sense the period from infancy to the time of entrance into school is the most deserving of our consideration, from the point of view of future citizenship. As the first three years in school are considered the "formative years" of school life, so these years, from one to six, may be considered the "formative years of life itself." During this time the mind which is undergoing rapid change in development is receiving its first and most lasting impressions. That is, the "central battery" is storing newly received impulses of thought and action for future use. The bony development is taking on its permanent nature, the muscles are strengthening and becoming co-ordinated into action, speech is acquiring its vernacular and accent, and the habit of word formation is being correctly or incorrectly formed.

Moreover, the human body is most susceptible to infectious disease during this period. The acute exanthemata are most likely to occur, followed by the well-known train of complications which are apt to more or less permanently cripple the future usefulness of their victims; while the scourge of tuberculosis as is well recognized today, seems to select this particular age for working its most destructive havoc. Should it fail to kill at this time it may lie dormant perhaps for years, only to reappear at a later period, cutting down its victim at the height of a useful career. The common "head cold," a comparatively minor complaint, must not be ignored, for its complications and sequelae are comparable only to those of acute exanthemata.

The reasons for all this are evident. The young organism having outgrown the protection afforded through the immunizing agencies acquired from the mother *in utero*, and being still young and tender, not yet having established its own immunity, furnishes a fruitful culture medium for invading bacteria.

What other age is comparable with this for furnishing opportunity for exercise of either constructive or destructive influences? Do we ask why this age is so neglected? The reasons are quite

obvious. So long as the child is an infant the mother realizes its dependence on her, guards it jealously, anticipates its every need and watches for the slightest sign which suggests that all is not right. Even though she may not be able to interpret these danger signals, she makes an effort, either following blindly some superstitious custom borrowed from a past generation, or, if she has been properly instructed, seeks the advice of those better learned, in the consultation room or baby clinic. As the child begins to toddle around (the English have applied the term "toddlers" to this age) and appears less dependent the slighter ailments are not so apparent, vigilance relaxes and neglect commences. This is particularly apt to be the case where there are several children in the family. The mother's time is occupied by a younger child and by household duties, the older children are watched over by the school authorities, but the one at pre-school age is neglected. This same neglect is apparent in the public and philanthropic supervision of children. The infants have been well looked after in clinics of one kind and another, and the older ones by the school and health authorities, but in general the child of pre-school age has been left to shift for itself.

What can be done for this child and how may it be accomplished? In a way the general principles which control the care of other children are applicable at this period, with certain modifications necessitated by the needs of a particular age. I should place as a pre-requisite for success the enforcement of birth registration. No single measure can accomplish so much in safeguarding the life and health of our citizens, by enabling those engaged in their welfare to keep in touch with the needs of the growing population.

A well organized clinic or child welfare station is the best medium through which our efforts may be expended in directing child welfare work. And let me say at this time that unless those employed in this work are prompted by altruistic and humanitarian motives rather than mercenary ones their whole labor and time will be wasted. Such a clinic will require the services of a directing physician and a directing nurse, both of whom must be familiar with the requirements of children. All other helpers should be under the supervision of these two. Such helpers should be physicians, nurses, social workers and dietitians.

The care of disease among children need not differ materially from the custom obtaining in the general clinic. Children who are not critically ill may be brought to the clinic as often as necessary, being visited at other times by the visiting nurse or social worker as the case may require. When the children become ill they should be removed to a hospital, but where hospital facilities are not available a physician connected with the clinic, assisted by the visiting nurse should be in attendance at the home.

The education of mothers in the proper care of children of this age is of prime importance. Such instruction should include not only the care of the well, but also the general care of the sick. Choice between group instruction at the clinic and individual instruction in the home must depend largely on whether the organization can supply a sufficient number of teachers. Generally speaking it is difficult to secure a regular and uninterrupted attendance on a consecutive number of lectures or demonstrations. I believe that much more can be accomplished through individual instruction in the home; the mother is taught amid the home surroundings to which she is accustomed, and with such utensils as she may be familiar. Such instruction should include the general hygiene of the home, ventilation and the like, the regularity of meals, the kind of food best suited to the child's needs and the economic choice and preparation of such food. The kind of clothing for indoors and the proper wraps for outdoors. Instruction should also be given in the general principles of prevention of disease, and especially how to detect the more apparent signs and symptoms of the commoner ailments. This work should be properly divided among nurses, social workers and dietitians, the work of the latter might be combined with that of a visiting housekeeper.

I believe that the service of a trained dietitian is one of the most important details in work of this kind, because, as has already been mentioned, the choice and preparation of food suitable for the child must be considered most carefully, since the most glaring indiscretions of diet occur during this age.

Only too often the sole purpose seems to be to appease hunger, without any regard whatever for the tissue building and heat-conserving elements contained in the food. The problem of economy should also be strongly emphasized, for it is well known that the poor pay a

vastly larger amount in proportion for food than the well to do, since they possess, as a rule, little knowledge of food values, and are compelled to purchase from small stores, which are extortionate in their charges.

Two classes of children deserve very careful consideration. Those deformed by tuberculosis or infantile paralysis and the feeble-minded. The first class are numerous in every city, and in many instances go unnoticed until marked deformity has resulted. Even then the majority can be made useful citizens through the agency of our orthopedic clinics. My appeal here is only for the recognition by the home visitor and reference to clinics. The other class, the ever-increasing group of the feeble-minded, can be detected at an early age, and such as are capable of instruction may be sent to suitable schools, while those who are to become burdens should be sent to institutions for their permanent care. In no instance should they be permitted to enter a graded school system.

What has been said here calls for a large number of diversified workers, and perhaps only a few organizations can afford this plan, besides the war is making great demands on all classes of trained workers at the front, and our clinics are being depleted. Recourse must be had to volunteer untrained help. And I believe that great good can be accomplished by using volunteer service, but these must be trained to a certain extent by those well versed before they go into the work.

In times of great stress, such as we are now preparing for, problems arise which have never before been faced, among these, and perhaps the most important, is that the head of the family may be called to the colors and his dependent ones are deprived of his usual wage. This is in many instances in effect equivalent to loss of the bread-earner by death itself.

In addition to what has been outlined as necessary assistance through education, what else may we be called on to do? When the family income fails to meet the absolute necessities, what will be expected of organized philanthropy? Whenever possible the family should be kept together. The mother is the proper and best person to care for her children, and where the necessity arises it is better to supply a helper for the mother in the home to enable her to devote more of her

time to her family where this is large, than to separate the members of the family. Where the mother must go out to work the children must be cared for in a day nursery, in order that they may still have the mother's influence and care at night. Which cases are to be handled in one way and which in another will depend on circumstances such as the number in family, whether the mother can become a large wage earner by reason of her skilled labor, etc. In many instances actual financial aid may become necessary; in others the furnishing of food, clothes or fuel may suffice. In all of these cases rare judgment must be exercised by those intrusted with the duties of administration.

In work of this kind there should be the closest and harmonious co-operation between all organizations; infant welfare stations and clinics, day nurseries and school authorities and particularly health departments. Each agency should report to its co-ordinate workers any case needing aid of a kind which it is not in a position to supply and thus secure efficient co-operation and prevent unnecessary duplication. This is particularly true in regard to the relations between organized philanthropy and the health department.

And I wish to emphasize the fact that physicians, nurses, social workers and the like can be of inestimable value to departments of health in detecting disease, unsanitary conditions and housing conditions which do not comply with the laws governing these matters. None of this co-operation can be successful without the keeping of proper records of every case by all branches of service engaged in child welfare. Thus from the birth certificate the child's progress should be properly charted at the infant clinic or station, or, during the same period, by the visitor in the home, if for any reason the child does not visit a clinic, through the period under discussion in this paper and finally should be handed to the school authorities on entrance, at school age. Physicians are well aware of the advantage, nay, absolute necessity of a careful history in the diagnosis of disease. This history is just as important in the directing of the social welfare of those coming under our care.

I have outlined briefly a plan which appears to me to be feasible and efficient. Modifications must of necessity be made in accordance with the needs of a community, the exigencies of a case and the funds

available. Any work of this kind of course calls for large expenditures of money. The goal—virile citizenship—however, justifies, yes, demands this expenditure. How is the financial situation to be met? We must rely on four main sources of income.

1. The Federal Government is making large demands on the youth of our land to protect us against invasion, the percentage of those called, who have been rejected on account of physical unfitness is appalling. The government must therefore give largely of its substance for the purpose of raising healthy citizens. Many families are left partly or wholly dependent by being deprived of the wage-earner, either through enlistment or death. In such cases it is mandatory that the government grant adequate pensions.

2. State appropriations should be forthcoming as far as possible for the same reasons.

3. Municipalities are perhaps affected through morbidity and mortality rates more largely than the other political divisions, and this should be a strong incentive to appropriations from this source. And finally from

4. Private citizens. From that large band of liberal Americans which seldom turns a deaf ear to the cry of humanity. One of the writers from France has said "To win the war has become the personal purpose of each individual citizen of France." So to heed "The bitter cry of the children," to protect them from neglect, to raise a healthy citizenship, without which no nation can be strong, should be the purpose of each individual in America, but especially the members of this association. From us must come the initiative, upon us may largely depend effective organization. Patriotism has recently taken on a new meaning to us Americans, but can I call you to a higher patriotism than "The Patriotism of Health?"

DISCUSSION

Dr. J. H. Young, Boston: Dr. Royster's paper is most interesting to me, because the Baby Hygiene Association of Boston, of which I am Director, is planning at the present time to take up work of this kind. There is no denying that this age group is in great need of supervision, and has been and still is greatly neglected. This work is, it seems to me, the logical extension for any society doing infant welfare work, and at the present time at least, if it is not taken up by such associations, it probably will not be taken up at all.

This paper has been especially helpful because it offers a plan. Our work for babies is well organized and well standardized, but when we try to extend our preventive work to older children, there is very little precedent upon which to base our plans. The Lincoln House in Boston, a settlement house in which we have had an infant welfare station for a number of years, has recently given us rooms for a clinic and the services of their dietitian to help us conduct the experiment of supervising children up to school age. As far as our plans have gone, the work of this clinic will be very similar to the work of the well-baby clinic, that is, weekly medical conferences and home visits. Most of the dietitian's time will be spent visiting and teaching in the home. We have reached the conclusion with our babies that group instruction of mothers—that is, the type of mothers with which we have to deal—is almost useless, and we feel that probably it will be very much the same with the older children. If we are really going to teach the mother something in the way of preparing food for her children, and to teach her what is proper food and how it should be cooked, we must go into that mother's house, into her kitchen, and show her how to prepare the food with the utensils she has at hand. I feel that the services of this dietitian will help our work to a very great extent, and that through the interest of the mother in dietetics we shall have a much stronger hold on the family than we would otherwise have.

Dr. Taliaferro Clark, U. S. Public Health Service, Washington:

I would like to emphasize one practical point raised by Dr. Royster in the care of the children of pre-school age, and that is the employment of the school nurses for this purpose. I might tell you of my experience in this direction in intensive school surveys made throughout the United States. In the course of physical examinations we found, in the primary grade, numbers of children who had serious physical defects, acquired through the lack of early attention, that might have been prevented by timely advice.

We have been keeping an account of children who have had the so-called communicable diseases of childhood, whether during the school period or prior to that time, and this has emphasized the point that many of the children have arrived at the school age and have had these diseases prior to entry. We proposed, following this medical inspection, the utilization of the school nurses to visit the homes, to teach personal and general hygiene, so that sanitation of homes and supervision of the health of the children may go hand in hand that children may enter school physically fit. We find that the care of the teeth has been greatly neglected in these little children, before they come to school, and it is needless to say how important and what far-reaching effect on health due attention to them will have.

There is one point about which I take issue with the writer of the last paper, and that is the suggestion that feeble-mindedness may be detected at an early age. Only serious conditions of this character can be detected early. Unfortunately for the health of the communities there are many feeble-minded children that are not as such, early enough recognized; and when they are

recognized in school by a proper mental examination and suitable psychologic tests, they furnish the clue to homes which are usually foci for the spread of disease. This brings up the question of proper state supervision and the adoption of measures to prevent the increase of this lamentable condition that so affects the physical and mental health of the communities involved. .

The Chairman: Will Dr. Royster close the discussion?

Dr. Royster: Of course in a paper the length of this one could only touch a few of the higher spots in the way of superficial suggestion. In answer to Dr. Clark I would say that I recognize that feeble-mindedness of the higher type, that is the moron type, is hardly detectable below school age. Many children, however, get into school who are of the feeble-minded class. I want to sound the note of warning that these are the classes that fall very ready victims to vice habits and that readily reproduce their kind; and they breed true. On that class of humanity we are dependent largely for our criminal class. That is my plea for using every effort to detect them and put them where they cannot harm their community.

OBSTETRICS

Monday, October 15, 1917

JOINT SESSION WITH THE COMMITTEE ON PEDIATRICS

COMMITTEE

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Secretary and Acting Chairman

MRS. MAX WEST, The Children's Bureau, Washington, D. C.

Miss Minnie H. Ahrens, Chicago
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Dr. George W. Webster, Chicago
Dr. J. Whitridge Williams, Baltimore
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Dr. Louis Burckhardt, Chairman

Minnesota

Dr. F. E. Leavitt, Chairman

West Virginia

Dr. J. F. Cannaday, Chairman

In the absence of Dr. Emmons, who is in Government Service, Dr. V. W. Harrison, of Richmond, presided.

TOPICS

Red Cross Child Welfare Work in France.

Review of Reports on War Work in England, France and Germany with Special Reference to the Care of Women during Pregnancy and Labor

Reduction of Infant Mortality due to Prenatal and Obstetrical Conditions. Comments on Replies to Questionnaire sent to Public Health Authorities

RECOMMENDATIONS OF THE COMMITTEE ON OBSTETRICS

The recommendations of the Committee on Obstetrics based upon the papers presented and the discussion which followed were summarized by Mrs. Max West, the Secretary and Acting Chairman, as follows:—

In addition to the recommendations contained in the report of Dr. Beitler, with reference to the necessity of defining a stillborn child, and the registration and reporting of stillbirths, your committee begs to submit the following:

Since it is manifest that if the war goes on, America must face the possibility of counting her losses by the million, as the warring countries abroad are already doing, and since, further, like them, she can only make good those losses from the children of the country the first imperative measure to be taken is to save the lives of babies now being needlessly wasted.

It is well known that many thousands of infants who now die might be saved by the application of certain preventive and remediable methods, with which this Association is thoroughly familiar. It is also well known that the shockingly large loss of infant life occurs in the earliest hours and days of life, because of lack of sufficient and suitable care of the mother before and during childbirth; it is also well understood that the efforts put forth to remedy these conditions will raise the health standard for many babies and young children.

Therefore, it would seem to be the plain duty of the Committee on Obstetrics to recommend to the Association that it should continue in every possible way its work of public education, and should attempt to devise new methods of educating the public to the paramount necessity of saving young life in this country through the promoting of every proper measure for extending and improving prenatal and obstetrical care.

Possibly one such method might be that of addressing letters to State and municipal boards of health, as was done last year, this time urging them to take up such work, or to extend it. The appeal may be made on the basis of last year's rather poor showing.

Another, to appeal to those institutions who are contemplating the teaching of infant care to start at the logical beginning, namely, prenatal care.

AN OUTLINE OF THE INFANT WELFARE WORK IN FRANCE

RALPH PEMBERTON, M. D., of the Bureau of Medical Service of Foreign Commissions, American Red Cross, Washington, D. C.

The infant welfare work in France now well under way constitutes a response to needs long obvious to many interested in this problem. It began with a visit of Mrs. William Lowell Putnam (now President of the American Association for Study and Prevention of Infant Mortality*) to Dr. Richard M. Pearce, Secretary of the Medical Advisory Committee of the Red Cross, at which she introduced the question of prenatal care and immediately allied subjects as preservative measures for the future generation in France. This meeting resulted in an expansion of the original ideas to a wider conception of maternal, infant and child welfare work. At nearly the same time the French Commission sent by the Red Cross, planned to include a general oversight of this problem, which was thus approached from several directions nearly simultaneously.

The general purpose of the work concerning which I want to give a brief outline is, of course, pretty obvious. For twenty years before the war the death rate and birth rate in France were so nearly equal that publicists were concerned over the future of the national life. Last year, however, with the death rate probably over twenty per thousand, not counting the deaths of men in military service, the birth rate was officially about eight per thousand. In New York State the birth rate is twenty-four per thousand and the death rate is thirteen per thousand. The total deaths in France in 1916 were 1,100,000. The births numbered only 312,000, a net loss in population of 788,000, or nearly 2 per cent of the whole population. In Paris, 49,000 babies were born in the year ending August 1st, 1914, but 26,179 were born in the second year of the war, ending August 1st, 1916. The vital necessity of preserving the mothers and infants in France is therefore, evident, and since the French medical profession has not developed, to the degree we have here, modern methods of infant feeding and general child welfare work, there was little doubt of the need for well

*Mrs. Putnam was elected president of the Association at the Richmond meeting.

trained pediatricists. Some attempt had already been made in France to meet this necessity by such organizations as the Charites Maternelle and l'Oeuvre Granger and other societies.

Casting around for the proper method of attack the name of Dr. William Palmer Lucas, professor of pediatrics at the University of California, at once suggested itself. During the period of Mr. Hoover's activities in Belgium, Dr. Lucas, at Mr. Hoover's request, undertook a survey of conditions there with results probably known to you all. Dr. Lucas was telegraphed for and reached Washington July 4th. After collaborating with him on the necessities of the situation it was decided that the best way to approach it would be for him to go abroad, taking with him a small number of co-workers, chiefly pediatricists, to make an initial survey, and to report at the end of three or four months as to the exact needs, in order that efforts upon a larger scale should be commensurate with the necessities. Dr. Lucas, therefore, sailed on July 22nd. With him were Dr. J. Morris Slemons, professor of obstetrics at the Yale Medical School; Dr. Julius P. Sedgwick, professor of pediatrics at the University of Minneapolis; Dr. John G. Baldwin, of Baltimore; Dr. C. F. Gelston, one of Lucas' assistants at the University of California, and Dr. N. O. Pearce, of Minneapolis.

It was intended that upon Dr. Lucas' return the major portion of the unit should be left in France under the direction of Dr. Sedgwick, to begin work planned and to be reinforced by other units made up in much the same way, which should be sent abroad as soon as needed. Dr. Lucas left tentative arrangements for the personnel of several such Units. Before the party sailed preliminary reports from the French Commission were to the effect that this work was very much needed, could not be begun too soon and that such efforts would be looked upon with favor and co-operation by the French authorities.

It seemed likely that efforts towards infant conservation would, of necessity, include obstetrical and gynecologic assistance and that after Dr. Slemons had looked over the field he would indicate the need for assistants to work in these lines. The only word we have had, however, from Dr. Slemons, is that obstetricians are *not* wanted at present. The situation in France is normally met largely through the activities of midwives, and under present conditions they are obviously amply able to meet all requirements.

On August 29th we received a cable in which Dr. Lucas submitted the names of some fifteen men whom he especially desired. Unfortunately, however, since his departure the relations of the Red Cross to the military authorities had undergone a considerable change and some of the men desired were unavailable because of membership in the Reserve Corps or inclusion within the draft limits. This introduced at once a disruption of the preferred list, which, together with the fact that a great many men were not available at the moment, although desirous of going later, made it necessary for us to fall back upon the pediatric section of the profession in general and to use our own judgment in selecting others to take part.

The original plan provided for the formation of units consisting of a director, with one or two first assistants, and two or four second assistants, together with such a number of nurses as might be necessary to insure effective institutional work. The above cable, however, specified that the men named should start as soon as they could and not wait to come together, and that it would be better to have them go separately, at least seven in September and eight in October. It was also requested that there be sent educational printed material such as that issued by the Children's Bureau together with cartoons from Baby Saving Shows and similar organizations. These were gotten together through the co-operation of Miss Lathrop, in Washington. The same cable requested fifteen nurses for children's work, especially those having social service training, and that they start immediately.

It became apparent at once that many men were reluctant to go in an individual capacity instead of as an integral part, either controlling or subordinate, of a definite organization. Furthermore, the question of salary and rank acquired new importance because the reduction of those who had been selected as directors to the capacity of individuals, seemed to put everybody on the same basis and entirely disrupted preconceived plans.

It may be well to mention here that the aim of the Red Cross is to obtain volunteer service wherever this is possible, but in the case of physicians whose practice ceases when they leave, it is necessary, in a majority of instances, to pay expenses and a salary, the top figure of which generally approximates that of a Captain in the Army. In

order to give authority to those serving abroad the Red Cross was "militarized," giving so-called assimilated ranks to those accepting service. This has led to a good deal of confusion, however, among those applying and it will be well to state here that there is in this no relation whatever to the army, so far as France is concerned. Physicians leave here with the nominal title of inspector, are assigned their rank, if any, by the Red Cross Commissioner in Paris, Major Grayson M. P. Murphy, and are given such titles as Director or Assistant Director. They are all required to wear a uniform, which at present is practically identical to that of the Army, and the French authorities are very particular that no one should land for such work without one. Until recently the Red Cross made use of a uniform more or less resembling that of the officers of the British Army, but this is being replaced as indicated above by the American type. Rank is indicated not by epaulets but by markings upon the sleeve, analogous to the method in vogue in the British Army.

We cabled to Paris of the disruption caused by abandoning the unit plan and the answer was that they did not wish units which expected to work together. The cable read:

"We wish individual physicians and nurses to be placed by us where needed, some singly, some in groups, some to be moved from one place to another and some at the Central Office. Sailing together of no importance. Will be placed separately when they arrive. No women or men units wanted as units unless cabled for as such."

The first contingent sailed September 15th, consisting of Dr. Charles U. Moore, of Portland, Oregon, one of those requested by Dr. Lucas, together with the first quota of fifteen Red Cross nurses. In consequence of certain postponements by the S. S. Co., the next sailing was October 13th and included nine pediatricists, five men and four women, together with one laryngologist and one dentist. Fifteen nurses also accompanied this contingent. This party was under the general leadership of Dr. J. H. Mason Knox, of Baltimore, although officially there was no distinction in the respective ranks of those taking part. Dr. Knox is at present Assistant Director of the Children's Bureau and is stationed at the Central Office, 4 Place de la Concorde, Paris.

It may be well to mention that in collecting the personnel for this work we have had in mind, not only pediatricists exclusively, but also

the necessity of including some physicians whose experience in general work would qualify them for such incidental necessities along that line as would almost certainly develop. Most of the names of the women physicians selected have been obtained from lists supplied through the courtesy of Dr. Caroline Purnell, of Philadelphia. The personnel of the second group is as follows:

Dr. J. H. Mason Knox, Asst. Director abroad, Baltimore, Md.
Dr. John M. Manning, Seattle, Wash.
Dr. Edmund J. Labbe, Portland, Ore.
Dr. Helen L. H. Woodroffe, Pasadena, Cal.
Dr. Florence C. Child, Philadelphia, Pa.
Dr. Dorothy Child, Philadelphia, Pa.
Dr. Frederick H. Wilson, New York City.
Dr. Esther L. Blair, Pittsburgh, Pa.
Dr. James L. Gamble, Baltimore, Md.
Dr. Francis C. O'Neill, Philadelphia, Pa.
Dr. Francis A. Georger, Buffalo, N. Y.
Dr. Esther E. Parker, Ithaca, N. Y.
Dr. Ethel L. Heard, Galveston, Texas.
Dr. O. H. Sellenings, Columbus, Ohio.
Dr. Frederick L. Macdonald, Laryngologist, Waltham, Mass.
Dr. R. H. Watson, Dentist, Waltham, Mass.
Dr. C. B. Bonin, Dentist, Boston, Mass.
Dr. Marian C. Stevens, Dentist, Reading, Mass.

On September 12th a cable was received as follows:

"Situation here most urgent. Former idea of units impossible to carry out; however, men's wishes of working together will be followed as far as possible. Placing of men must depend on needs. Please see if twenty-five or thirty trained nurses can be sent over. Need for such trained nurses over here very urgent. Nurses as well as doctors should be sent as rapidly as possible."

Before this it had become apparent that the leave of absence allowed Dr. Lucas by the University of California would have to be extended, and in the course of settlement of this a graphic estimate of his work was given by a cable received September 13th from Major Murphy:

"Please understand that under no circumstances whatever can we spare Lucas. He is absolutely invaluable and is doing magnificent work of the utmost importance, not only to our organization but to France. I am planning so that his work shall be extended over all the territory under my control. He is in charge of the Children's Bureau organized in the Department of Civil Affairs to cover work in cities and devastated areas. This Bureau concerns itself with all matters concerning children, including orphans. He is really indispensable and I cannot make it too strong that you must arrange so that he will stay."

It is interesting to note as further evidence of the needs in France that the Children's Bureau has had several requests from the American Base Hospitals to supply pediatricists to work in connection with their units though not as part of them, in answering the many calls for medical care which come from the children in their vicinity. This is particularly true of the Presbyterian Hospital Unit, American Base Hospital Number 2, the medical section of which is in charge of Dr. Homer B. Swift. It is also true of American Base Hospital Number 21, from St. Louis. The request for this work came through Dr. Borden S. Veeder, associate professor of pediatrics at Washington University, St. Louis, and a director of this Association. He writes that there is a tremendous need for children's work in his neighborhood and has already started some children's clinics which it is expected the Red Cross will carry on when pediatricists can be assigned to them. Analogous requests were received from another American Base Hospital. In general, however, the district in which the children chiefly need care is the so-called Zone des Armees, an area extending back about thirty miles from the front lines.

On September 23rd we received from the Children's Bureau in Paris a request for laryngologists. It seems that there is hardly a clinic in Paris which is equipped to remove tonsils and adenoids among the children. It was emphasized that those selected must have had experience with tuberculosis throat work and that they must bring complete operating equipment, one equipment for a more or less permanent station and another so fitted out as to enable the operator to travel behind the lines. A similar request was made for dentists, four of whom were needed, two with stationery equipment for use in the Paris Dispensary and two with travelling equipment analogous to that for the laryngologists. It appears that all such equipment, together with the general material with which to work, is practically unobtainable in Paris at present and each man took over about \$500 worth of apparatus for his personal use.

Other than the fragmentary information from the cables our data as to the conditions existing in France has been relatively meager. Some facts of a general nature are available, however.

Perhaps the first work inaugurated was the establishment of a children's shelter at Toul, a city in a section of the war zone, frequently bombarded by the enemy. Gas bombs are used by the Germans and the inhabitants are obliged to wear face masks to escape asphyxia. This mode of protection, however, is not feasible for children and it was found necessary to send them away. The prefect of the department telegraphed to Paris that 750 children had been suddenly thrust upon his hands and that he needed immediate assistance.

In response eight workers left Red Cross Headquarters, a physician, a nurse, two auxiliary nurses, a bacteriologist, an administrative director and two women to take charge of the bedding, clothing and food. They found that twenty-one of the children were infants under one year and the remainder were under eight years. They were herded in an old barracks, unfurnished and without sanitary appliances. The sick were crowded in with the well and skin disease and vermin abounded.

Within two days the children were cleaned, medical care was given them, nurses were secured for the babies, suitable food was provided and a classification was made of all the refugees to prevent separation of members of the same family.

The French Government has now provided a new brick barracks of ten buildings, situated on a hillside a mile from Toul, and furnishes coal, water, light, rough labor, beds and bedding, rations and transportation of supplies.

The Red Cross supplies doctors, nurses and administrative officers and installs the necessary sanitary apparatus. Twelve shower baths have been set up and supplies provided for the recreation, education and vocational training of the children.

The new staff at Toul was under the direction of Dr. Sedgwick, with the assistance of Dr. Durand and Dr. N. O. Pearce, together with fifteen nurses and aides.

The work of the Red Cross at Toul has been greatly augmented by the gift of a Children's Hospital from an American Committee. This hospital of eighty beds is being equipped and will become the center of the welfare work for the entire Department of Meurthe et Moselle. The need of this work is apparently overwhelming and the

Red Cross is directing from the center at Toul an educational campaign on child hygiene and preventive measures that is reaching all the villages and big refuge asylums for children at Nancy, Pompey and other neighboring towns. A not inconsiderable amount of medical care of adults has also been inaugurated here and it is understood that this is later to include some obstetrical and gynecologic aid as well.

Another important constructive effort resulted from an appeal received from the town of Nesle through the French Red Cross, for aid among the children of that district and the group of villages to the north and west. Dr. Baldwin was sent to investigate conditions and found villages looted and burned, with all buildings destroyed. He found more than one thousand children practically with no medical care, one-half of whom were infected with skin or eye lesions, and many ill.

The equipment for medical care was confined to a hospital stripped of apparatus; one aged civilian doctor without drugs or means of getting them, and a fairly intelligent mid-wife. The town immediately offered an unused tuberculosis pavilion for the Red Cross headquarters provided the American Red Cross would co-operate in maintaining and equipping, etc.

The Children's Bureau began work by installing a central depot with ten beds as a clearing house for the district, and by equipping an automobile as a travelling dispensary with shower baths. This idea of carrying a clinic wherever needed probably originated with Dr. Lucas as the result of his experience in Belgium. It is easily seen that a very much larger district and community could thus be reached than would otherwise be the case under the hampered conditions existing in that territory.

A dispensary car consists of a Ford, with a seat on one side, something like an ambulance, on which a nurse and a child or two can be carried. There is the usual ambulance equipment for medicines, instruments, splints and the more bulky surgical dressings. On the floor of the car there is arranged a shower bath operated by means of a hand pump. The cars visit the villages on a daily round with a trained nurse and two nurses' aides.

An important practical step in caring for the civilian population concerns the very necessary campaign for "delousing" those who have been for months without water, soap and the means of keeping clean. It is common knowledge that this is a vital factor in trench life and it plays an almost equally significant role in the devastated and certain other areas. The necessity of this work is most acute at Evian, where the repatries are returned to France in large numbers. The usual routine of sulphur baths and ointments is inaugurated, the clothes of those afflicted are sterilized, and if necessary, a complete new outfit is given. The whole process requires, apparently, from two to ten days, depending upon the general degree of involvement. During the four weeks of September 620 cases were kept at the above station from two to ten days or longer; 350 passed through with baths and 360 with head douches alone.

The Rockefeller Foundation, in conjunction with the Red Cross, has planned a very large and significant effort which provides for the establishment of about two hundred centers throughout France at which tuberculosis dispensaries will be established and it is hoped that eventually in each one of these a Children's Department will also be included. This is one of the most essential activities that can now be instituted in France and furthermore, it will be the means of carrying on a campaign of general sanitation and health education to the people at large. We are advised that the importance of this effort in saving the French race cannot be over-estimated and that the Red Cross has the sympathy and active backing of the best pediatricists in Paris. It is pretty common knowledge that few countries in Europe can compare with the United States in regard to the general sanitation and hygiene of the community at large; certainly France does not and the present critical situation furnishes an opportunity which could hardly exist under less pressing conditions, for the successful institution of an educational campaign along the above lines. At the present time the French are psychologically in a most receptive attitude and much can be justifiably attempted which at other times would be altogether impossible. There is being developed a Franco-American Pediatric Society in connection with this work for the purpose of advancing pediatrics in France.

Along these lines, one of the most ambitious aspirations is a Children's Welfare Center to operate in conjunction with the Tuberculosis Dispensary in Paris. The district in which this is to be started is one of the poorest and most congested. This unit for infant welfare will include a dispensary, a small receiving hospital, a milk station and a training school for visiting nurses and social service workers, as well as a school for developing home dietetics and recreational work. As soon as possible other arrondissements in the city and elsewhere will be selected as centers for this work.

Perhaps the most urgent and individual need confronting the Children's Bureau presents at Evian, where the repatries are returned to France in numbers approximating 1500 a day. It seems that from fifty to sixty per cent of these are children, sometimes more, and that the balance are the old and diseased; individuals not fitted for any active, contributory work in Germany. These people have come originally from the occupied regions of France and after detention in Belgium or Germany are returned via Switzerland. About 750 arrive in the morning and 750 in the late afternoon, necessitating, obviously, concentrated active attention. About sixteen per cent need medical care and of these about one-third have tuberculosis. Up to October 1st about 300,000 repatries had been returned to France, but more recent figures give the total number as now 800,000. This means that up to October about 150,000 children have been returned to France. The largest single group of children to arrive to date, included a group of 680 Belgian children, although some days the total daily number runs as high as 600 to 900. This large number of repatries is scattered throughout France in groups of various sizes, some containing as many as 10,000 gathered together in one place. Upon arrival in Evian the repatries are turned over to a large force of clerks, some 200 in all, certain of whom question them in regard to their relatives and place them in the proper channels for relief. The number of children obviously necessitates hospital accommodations for the treatment of such general diseases as they present. For this purpose a large hotel at Evian was turned over to the Red Cross and up to date a total of about 100 beds is available. Dr. Labbe, with his assistant, Dr. Gelston, is in charge of the hospital here.

The tuberculous cases are for the most part sent to Marseilles, while at Lyons there has been established a hospital of about two hundred beds for the care and retention of children, until such time as they can be returned to their families or homes.

In addition to the above another hospital has been established at Evian for contagious diseases, which is now overcrowded with diphtheria, measles, scarlet fever and whooping cough. Twice daily some 250 or more children, newly arrived, are examined and properly distributed according to their necessities. Each contagious case thus arrested is a step towards the prevention of an epidemic "somewhere in France." It is doubtless the hope of the Germans that the repatries will carry these dangers with them into the community.

In the first week following the institution of the above efforts, over 2,400 children were examined, more than 1,900 being between the ages of three and thirteen years. The average is now 2,600 per week. It seems that infants under three years of age are kept by the Germans in the belief that at that early period of life it may be possible to convert them into loyal German citizens. It is also noteworthy that up to about October 1st only about 100 pregnant women had been returned to France.

An American dentist has also begun work at Evian under rather rough and improvised conditions.

The next pediatric contingent from America sailed October 27th and subsequently and included the following physicians:

Dr. Mabel H. Bancroft, East Orange, N. J.
Dr. J. E. Labonte, Dentist, Webster, Mass.
Dr. S. M. B. Smith, Wausau, Wis.
Dr. William I. Wiggin, Laryngologist, Lowell, Mass.
Dr. Maynard Ladd, Boston, Mass.
Dr. Robert G. Sharp, Boston, Mass.
Dr. Kariton G. Percy, Brookline, Mass.
Dr. E. A. Park, Johns Hopkins, Baltimore, Md.
Dr. Clelia D. Mosher, Stanford University, California.

Dr. Ladd has taken the place of Dr. Sedgwick, in the direction of the work at Toul and is assisted by Drs. Sharp and Percy, pressure of duties in America necessitating the return of Dr. Sedgwick, together with some of his assistants. Dr. Alice Barlow Brown, of Chicago, previously active under the American Fund for French wounded in France, is also assisting here.

At the present writing it is not at all clear to what degree this relief work will be extended to other countries, although, for Serbia at least, analagous steps have been contemplated.

The present staff of the Children's Bureau numbers 37 doctors, 41 nurses, 14 aides, 12 social service, educational and recreational workers and 12 clerical and business assistants, total 116, and we are now preparing our lists of personnel including physicians, trained nurses and aides, so as to be able to meet this greater demand when it is specifically made.

Perhaps one of the best purposes to be served by this fragmentary report would be the addition to our lists of the names of individuals who come within any of the above classes and are in a position to volunteer their services with or without salary for such work.

As has been already emphasized in the public prints, it is not possible to attempt efficiency measures in France, even along medical and sanitary lines, with disregard of the sensitiveness of the French people at large. The demands made to us in this country for medical assistance have varied from time to time and perhaps have never seemed entirely consistent with the obviously great needs in France, but for the above reason it has been necessary to proceed slowly and with discretion in order to avoid any appearance of compulsion. It is of the greatest importance that relief measures of the above nature should appear at least in part to initiate among the people and not be forced upon them, and this is true not only of France but often of our own communities in this country.

**REVIEW OF REPORTS ON WAR WORK IN ENGLAND, FRANCE AND
GERMANY WITH SPECIAL REFERENCE TO THE CARE OF
WOMEN DURING PREGNANCY AND LABOR**

MABEL BELT, M. D., Baltimore

Maternal and child welfare work have come to assume more and more importance since the beginning of the great war with its huge destruction of human life. In England, France and Germany work along these lines was well under way before the outbreak of hostilities, but since that time these activities have been markedly increased. It is interesting to note that the schemes initiated or extended in the various countries have been similar in direction and scope. Another resulting feature is the decreased importance of the work by voluntary associations, in contrast with the assumption by the state of increased responsibility for the life and health of its civil population. The most extensive papers available at the present time concerning the activities under discussion are the ¹Reports of Sir Arthur Newsholme, the Medical Officer of the Local Government Board of England and Wales, and the ²Reports of the Carnegie United Kingdom Trust, published in the present year. These deal with conditions in England, Ireland, Scotland and Wales, and will be discussed first.

July 30, 1914, the Local Government Board for England and Wales issued circulars in regard to regulations under which grants would be made by it. ³ These circulars were sent to county councils and sanitary authorities asking that they undertake infant and maternal welfare work and offering to pay fifty per cent of the cost of such work. Under certain circumstances it was willing to subsidize in the same way the work of voluntary agencies. The memorandum and official circular stated that a complete scheme would comprise the following elements, each to be organized in its direct bearing on infant health:

1. Arrangements for the local supervision of midwives.
2. Arrangements for:

Ante-natal—

- (a) ante-natal clinics for expectant mothers;
- (b) home visiting of expectant mothers;
- (c) maternity hospitals for complicated cases of pregnancy.

1. Rept. Grt. Brit. Local Govt. Bd. Maternity and Child Welfare, 1917.

2. Reports Carnegie United Kingdom Trust. Physical Welfare of Mothers and Children. England and Wales, Vols. I and II. Ireland, Vol. IV, 1917.

3. Grt. Brit. Local Govt. Bd. Official Circular Maternity and Child Welfare. July 30, 1914; September 26, 1916.

4. Rept. Carnegie Unit. Kin. Trust. Vol. 1, pp. 90, 91.

3. Arrangements for:

Natal—

- (a) skilled assistance during confinement;
- (b) confinement, if necessary, in a hospital.

4. Arrangements for:

Post-natal—

- (a) treatment in hospital of complications after parturition;
- (b) systematic advice at infant clinic;
- (c) provision of clinics for young children;
- (d) systematic visitation of homes of infants and young children.

Similar grants³ were offered by the Local Government Board in 1915 and 1916 in communications sent throughout the land which said "The Board takes this opportunity of impressing on local authorities the importance of securing full provision for the maternity and child welfare in their districts, in spite of the need for economy in other directions at the present time." The services authorized were:

1. Salaries and expenses of inspectors of midwives.
2. Salaries and expenses of health visitors and nurses engaged in maternity and child welfare work.
3. The provision of a midwife for necessitous women in confinement and for districts which are not sufficiently supplied with midwives.
4. The provision of a doctor for the aid in confinement of necessitous women.
5. The expenses of a maternity center, i. e., an institution providing any or all of the following activities, viz:—medical supervision and advice for expectant and nursing mothers and for infants and little children, and medical treatment at the center for ailments incident to pregnancy.
6. Hospital treatment provided or contracted for by a local authority for complicated cases of confinement or complications arising after parturition, either in the mother or infant, and for infants found to need hospital treatment.

The answer to questionnaires sent out recently in order to determine to what extent local authorities had responded to this appeal of the government show the following:

In the majority of districts there is some child welfare work being done, but in many no prenatal work as yet. Where there is prenatal work it is usually carried on by a voluntary agency and not by the local sanitary authority. A number of districts report that plans for a maternity center such as has been described, are under way. From fifty to seventy-five per cent of the women are delivered by midwives and one-third to one-half of these midwives are untrained.

The Board of Education of England has undertaken to establish schools for mothers ⁵throughout the land. Like the Local Government Board it limits its grants to one-half of the expenses of the institutions. Their main object is the prevention of sickness and ill health among infants and little children by means of the education and training of the mother. This end is accomplished by⁶

1. Infant consultations.
2. Home visits to see that the instruction given is put into practice.
3. Instruction by suitable class work (health talks, sewing classes, mothercraft, hygiene).

In 1907 the Notification of Births Act was passed for the whole of Great Britain. It required that the medical officers of health be informed in writing within 36 hours of the birth of a child. In 1915, when the increased necessity for the protection of infant and maternal life was causing the establishment of many new welfare undertakings, this act was extended so that under its provision local committees were formed in each district, these committees to include women among their members, and to provide in any way which they saw fit for the care of expectant and nursing mothers and infants. Large funds were put at their disposal for this purpose.

The discussion so far has concerned England and Wales only. The remainder will deal with activities in France and Germany, as well as Great Britain.

A matter of vital importance is the provision made in the various countries which are at war for the delivery of women with special reference to the midwifery problems, as it presents itself in different lands.

A Widwives Act ^{7a}was passed in 1902 for England and Wales. Since the outbreak of the war a similar act has been passed for Scotland. This act required originally that a prospective midwife have three months training in a recognized hospital. Since 1916,^{7b} the time required has been increased to six months. She must attend 20 cases, receive instruction in anatomy, physiology, hygiene, the management of

5. Grt. Brit. Bd. of Education and Local Govt. Bd. joint circular, May 31, 1915.

6. Rept. Carnegie Unit. King. Trust, Vol. I, pp. 92, 93, 94.

7. (a) Rept. Carnegie Unit. King. Trust, Vol. I, pp. 17-33; 95-97; (b) Vol. II, pp. 23-49.

In France ^{10 11}there has been a government maternity grant since 1913 to women working for wages outside their homes. Since the war this benefit ¹²has been extended to all French women drawing separation allowance and to all refugees receiving special government aid. This allowance of from ten to twenty-five cents a day extends over a period of eight weeks, with an extra daily allowance of ten cents after confinement to those mothers who nurse the child.

In France it is not only the employment of women during the weeks following delivery which is a matter for concern. The prohibition¹² of all pregnant and nursing women from work in munitions factories is under consideration. There is a division of opinion as to the need for such a radical step. In March, 1917,¹³ following numerous discussions of the subject a number of resolutions were drawn up by the French Academy of Medicine, including the following recommendations:

1. Pregnant and nursing women employed in factories to be subjected to tasks requiring only moderate effort.
2. Compulsory rest for four weeks preceding confinement for women workers in munitions factories.
3. Consultations with physicians on maternal and infant hygiene, regulation of labor according to individual need, a female supervisor to deal directly with the women in place of the superintendent.
4. Measures to enable women to nurse their infants while at work and premiums to those who do so.
5. Indemnity paid from the government to those women who because of pregnancy are partly or entirely incapacitated for work.
6. Retiring rooms in which mothers can nurse their infants, and children's playrooms.

In Germany¹⁴ maternity benefits were first granted under the Imperial Insurance Code of 1911. Three times since the beginning of the war these grants have been extended. They are paid to the wives of men performing military, medical or similar service in the war for the empire, or men who are prevented therefrom or from again pur-

11. Rept. U. S. Dept. of Labor, Children's Bureau, Governmental Provisions in the United States and Foreign Countries for members of the military forces and their dependents. Capt. S. Herbert Wolfe, 1917, p. 49.

12. Meigs, Grace L.—Infant Welfare Work in War Time. *Am. Jour. of Diseases of Children*, August, 1917. Vol. XIV, pp. 80-97; *Edinburgh, Med. Jour.*, June, 1917, p. 451.

13. Merrill, T. H. Some Economic Hints from France. *Am. Jour. of Obst. and Dis. of Women and Children*, Vol. LXXVI, No. 3, 1917.

14. Rept. U. S. Dept. of Labor, Children's Bureau, Governmental Provisions in the United States and Foreign Countries for members of the military forces and their dependents. Capt. S. Herbert Wolfe, 1917, pp. 71-72.

suing a wage-earning occupation by death, injury, capture or imprisonment. The benefit consists of:

1. A contribution of \$59.5 to the expenses of confinement.
2. A lying-in grant of 24 cents a day for 8 weeks, 6 of which must be after confinement.
3. A contribution of \$2.38 paid prior to confinement for widwife or doctor.
4. Premiums of 12 cents a day until the twelfth week after confinement to mothers who nurse their babies.

One of the subjects connected with welfare work which has recently been agitated in England is that of venereal disease. In 1916¹⁵ regulations were made by the Local Government on this subject. Since syphilis is the most common cause of the birth of premature and still-born infants these regulations are of interest in connection with the present discussion of prenatal care, though they were not made entirely in behalf of future generations. They provide for the free diagnosis and treatment of all cases of venereal disease. Each sanitary authority is asked to make arrangements with local hospitals for pathological, bacteriological and serological examinations, clinical conferences, administration of drugs and hospital treatment for patients when necessary. The central government agrees to pay 75 per cent of the cost of such work.

Another aspect of prenatal care, which, however, has been more emphasized in France than in England, is the furnishing of meals to pregnant and nursing women at little or no expense. In both countries the work is carried on by voluntary agencies, there being no government grants available for the purpose. The most extensive schemes exist in Paris, but work along this line is now being organized in other cities of France. The Cantines Maternelles supply two free meals a day to every woman within five months of her confinement and to every nursing mother until her child is 14 months old. This work was begun in 1905.^{16 17} Since then the number of canteens has been greatly increased, the number of free meals distributed to pregnant and nursing women being three times as great in 1915 as it was the preceding year. Once a week during the lunch hour a consultation for mothers and an infant clinic is held.

15. Grt. Brit. Local Govt. Board. Official Circular, Venereal Diseases. July 13, 1916.

16. Rept. Restaurants Gratuits Des Meres Nourrices, 1917.

17. Rept. Carnegie Unit. King. Trust, Vol. II, p. 103.

interested help. The object of this questionnaire was to ascertain what was being done to prevent deaths from prenatal causes, and it is this point where we pass from the postnatal to the prenatal that might be termed the point of departure in so far as we have accurate knowledge of facts and I can see reason for the apparent lack of interest by sanitarians.

As a matter of fact, study and investigation of this phase has been very meagre—too few facts are known, and at this time the attitude of sanitarians differ, some feeling that prenatal causes are as important as postnatal causes in determining infant mortality, other receiving whatever discussion they hear without active interest, while the majority give the subject very little attention.

It will be necessary to obtain a scientific basis for work before establishing an effective organization for the relief of prenatal infant mortality. This no doubt must be sought in a field, which for obvious reasons is a difficult one from which to obtain correct data. There is, however, one method which appears promising, *i. e.*, the intensive study and rational statistical treatment of still-births. Karl Pearson in his essay on "The Chances of Death," estimated that for every 1,000 live born children there were 605 still-born, and Dr. Franklin P. Mall, Director of the Carnegie Laboratory of Embryology, in an interview with the author stated that it was his belief that the incidence of still-births is at least one-half of the total number of live births. That these estimates can be reconciled to facts with which all sanitarians should be acquainted, one only has to project the infant mortality incidence into the prenatal period. It is of interest to note that of 58,089 deaths under one month in the registration area in 1910, 25,672 or 61.40 per cent. were attributed to antenatal causes. It is axiomatic in my experience that the course of the mortality curve from the first to the thirtieth day of life is determined almost entirely by prenatal causes. It is my opinion that if this information serves its proper purpose, it will be to establish an axiom for every one interested in the reduction of infant mortality, *i. e.*, "The conservation of infant life must begin at the period of conception." Any departure from this fundamental principle will necessitate a sacrifice.

Proper treatment of such data and material can only take place

through the recognition by sanitarians of the importance of this field of work, and the opportunity which they have before them. The first step, therefore, is the establishment and adoption of a definition of a still-born child by all the boards of health, a matter which in my opinion, has been discussed principally in relation to registration and entirely independent of its most interesting phases, namely its reflection in the birth rate, infant mortality rate and its association with the causes of sterility. In the tabulated statement of the answers from the twenty-eight states, only three states made an effort to receive reports of all still-births, Maryland, Michigan and West Virginia. The remainder only require reports for those children which have attained four to seven months utero gestation. It is useless to discuss the numerous methods of evading reports by the unscrupulous under such a law, or its evident fallacies from a scientific point of view.

Appropriations definitely designated to this purpose by state or municipal governments are the exception. The cause for this is evident for except in a few instances, such as the prevention of eclampsia or Caesarean section in contracted pelvis, etc., sanitarians can present no concrete facts for argument, nor do they possess any statistical statements which could be proof of the necessity of funds for further investigation. It has been my experience that, as a rule, public funds are not appropriated through sentiment, but through necessity.

I have no doubt that whatever is expended at present to reduce infant mortality due to prenatal and obstetrical conditions is productive of good, but I fear it is concentrated about a few well known facts, and I am certain that the very best return for the funds and energy spent will not be attained until further investigation reveals the more subtle influences which underly this great waste of life, and to this end, it behooves this Association to lend its aid wherever possible, to the establishment of statistical and scientific methods for the investigation of this problem.

DISCUSSION.

The Chairman: This is a very important subject and I hope we will have a free and open discussion.

Dr. Helen MacMurchy, Toronto: I thought it might be of interest to recall the generally accepted statement of Dr. Amand Routh, of London, who

has repeatedly said that in his opinion infant mortality during the first year after birth is just about equal to the mortality of children *in utero* including still births.

Mrs. West: Dr. Merrill who was to discuss Dr. Belt's paper is unable to be here and has sent some material which I will present. The point of this program is to lay before us the work that is being done abroad particularly now in prenatal work and maternal welfare, to compare it with what is or is not being done in this country. We hope that any members of the audience doing work of this sort will take part in the discussion.

Dr. Theodore C. Merrill, Washington, D. C.: (Read by Mrs. West). The work developed in Canada, New Zealand, Australia and other distant parts of the British Empire, has closely paralleled that in England, Scotland and Ireland. The report of the Local Government Board for England and Wales points out a reduction of infant mortality prior to the war and including the first year of the war, followed by an increase the next year and then a marked decrease, as a result of the concentration of effort on infant and maternal welfare work. The rate which was 105 in 1914 rose to 110 in 1915, but fell in 1916 to 91 per 1000 births.

The entrance into military medicine of a large number of physicians depleted the home supply. The resulting lack of medical resources at once made it necessary for the community to look out for its own interests and produced an extension as well as a concentration, of maternity and child welfare activities. Pressure was thus brought to bear upon the Local Government Board, the official body which is in a position to provide for the allotment of public funds.

War conditions surrounding maternity and infancy, have suggested more strongly than ever before the creation of a department or executive organization devoted exclusively to the domain of public health. Lord Rhondda has expressed himself as being in favor of this idea, but of course he is now Food Dictator.

The Rockefeller Foundation has formulated a plan for the initial expense of installing maternity and child welfare centers, the cost of upkeep to fall upon the community. So far as I am aware, no center of this kind has yet been actually established. The Local Government Board has urged the establishment of centers or stations by organizations privately financed and the extension of education by talks, demonstrations and all other possible ways.

Regarding the conservation of infant life, figures given by some of the colonies show a remarkable decrease in infant mortality, so much so, that some economists are somewhat skeptical as to the reports.

In connection with the administration of the Act concerning extension of the notification of births, the fact has been made especially clear that infants placed under the care of persons compensated for this work receive better care if the compensation is paid by the week than when the caretaker is paid by the piece or job. Frequent payments mean frequent inspection of progress and hence show very soon whether a caretaker is faithful and efficient or not.

Studies made from the inception of the war have brought full into public gaze the especial necessity for conserving infant life in France. The steadily declining birth rate has been an old and neglected story, for far too long a time. Now it can no longer be ignored. A commission appointed to study and report on the subject finds that there is no impairment of French virility, but that the question is economic. People are unwilling to incur the expense inseparable from the bearing and rearing of large families, from the standpoint of the interests of children as well as those of the parents. It will be necessary to meet this national problem, otherwise France, in fifty years, will be about as influential in Europe as Portugal is now.

The French studies bring out the necessity for having a woman superintendent intermediate between women employees and the factory manager. Her services alone can secure to women workers the hygiene and oversight peculiarly required by their sex.

The socialization of maternity and infancy, in France, is well brought out by Dr. Belt by her mention of the large number of women receiving Government aid during pregnancy and confinement. The state must take an increasingly important share in caring for the lives of women workers, especially if they are to labor to support the Government in time of war. What it will finally do to encourage child-bearing is now before the world. It is inconceivable that the genius of France cannot solve the French national problem. Perhaps no greater misfortune could befall the world than to suffer Gallic mentality to be submerged in a twilight of the gods.

Mrs. West: Some points in Dr. Merrill's paper suggest what we are so often talking about—the formation of a National Department of Health in this country.

I will ask Dr. Hollingshead to tell us what is being done along the line of prenatal care by the State Department of Health of Ohio.

Dr. Frances Hollingshead, Director Division of Child Hygiene, State Department of Health, Columbus, Ohio: We have been trying in small places to establish confidential agencies like those used by Dr. Lydia DeVilbiss in Kansas. This plan interested me especially. We have attempted to establish them in small places where there are public health organizations as well as to develop a regular bureau in the state department, where the work so far has consisted in answering letters from mothers throughout the state. We have been establishing these small agencies as part of the war program in some of the communities of five to ten thousand. I think we need in state work more stimulus for activity in the smaller place than in the large city. In the cities you have a certain amount of machinery with which to work; in small places there is often nothing. We urge that the small places shall begin with the child in the pre-natal period, or, if this is not possible, at the pre-school age. We hope to strengthen this movement in the coming year and we have tied up this

work as far as possible with the whole obstetrical scheme, although there is very little in the way of an organized plan in many places, thinking this may be a first step in the ultimate development of child welfare work. The obstetrical scheme largely depends on the physicians in the local community. I have been much struck this morning with the discussion about the responsibility of the colleges for preparing the young physician to handle this service; I think that is what we want; but some of them must be urged to go to these smaller places and do this work, instead of all staying in the great city, to become tyros for the leading physicians there.

Dr. Dorothy Reed Mendenhall, Madison, Wisconsin: You may be tired of hearing of Extension work, but perhaps you will be interested in knowing that the University of Wisconsin is now extending its Extension work, and sending out physicians from the University Clinic to give medical extension work in the little towns, to bring recent medical developments and training to the rural physician. I think that is a great step toward what has just been suggested. For four years we have had in Wisconsin extension work in obstetrics, both correspondence courses and by lecturers who go out and give health talks, followed by clinics for mothers and children. The lecturers go all over the state. Last winter we were forty miles from a railroad in one instance, where the clinic was attended by our friends on snowshoes. Though this is a small work, we believe that it is one way to reach all over the state. Through the correspondence courses and through the Children's Bureau we find we reach the very small places where perhaps there is not a physician within twenty-five miles. It is an educational work purely.

Statistically you may be interested in the fact that we were asked to go over all the birth and death surveys for eight years—that is for the time during which our registration has been at all adequate. We were interested to find that at least fifty per cent. of the deaths of children in the first year are in the first month of life. About eighty per cent of these can be attributed to pre-natal causes. We had to make analyses of our death certificates for this purpose because such deaths as “ammonia” and “congenital senility” during the first three days of life had to be explained! We considered those to be of prenatal origin, though we did not know exactly what was in the mind of the physician when he made that diagnosis. It was interesting to find that we could prove a pet theory of mine, that our death rate in the first month of life is ten per cent higher in the rural districts than in any city. We are always hearing that it is so healthy to be born in the country, so much more so than in the city, but it is not so, at any rate, in Wisconsin.

Dr. Bertha F. Johnson, Chief, Division of Child Hygiene of the New Jersey State Department of Health: As we have only two trained workers on the staff of the Division of Child Hygiene we are not doing much prenatal or obstetrical propaganda except what is done in connection with the exhibit.

We have a child hygiene exhibit on the road, in connection with which lectures, illustrated with moving pictures and lantern slides, are given. One section of this exhibit deals with prenatal care and one with care at birth. There have been a few objections by hypocritical persons concerning the lack of "delicacy" in showing such material to children, but as a rule we have had the heartiest support of the school authorities and school nurses.

The nurse on our staff holds mothers' meetings almost every afternoon when the exhibit is shown, and gives the mothers instruction on prenatal care and care at confinement. When the exhibit is not in the field we do some lecturing for women's clubs and other organizations. We have distributed copies of a leaflet on prenatal care issued by the Children's Bureau.

Dr. Grace L. Meigs, Children's Bureau, Washington: I should like to discuss especially Dr. Beltler's paper—what governmental agencies are doing for prenatal and obstetrical work. We can say off-hand that they are doing very little. The paper showed us that state and city departments of health are doing actually very little to combat the excessive death rate among babies due to prenatal causes, and I may say also, the death rate among mothers.

Perhaps some of you know the Bulletin published by the Bureau on Maternal Mortality. In preparing it we found, much to our surprise, that the death rate from child birth in this country among women of child bearing age, is actually greater than from any disease except tuberculosis. That is a fact which statistics hitherto have always concealed. We have taken it for granted that the improvement in asepsis and the great advances in obstetrics have led to almost complete abolition of danger in child birth. Actually, a woman between fifteen and forty-five is in greater danger from this cause than from any disease except tuberculosis.

I think the great duty of governmental agencies is education. That is the one place where we can make some impression on the problem. The very fact that all of us did not realize before these figures were dug out of the reports, that women were still dying from preventable complications in child birth, proves that people still have far less knowledge than they should have that women ought to be protected. State departments have the task before them to show in all their literature that the care of women at child birth and before confinement is a very important problem.

Another way in which state departments can help is through the extension of the public health nursing service. You heard what splendid work Virginia is doing in helping to supervise and establish county public health nursing service—more than ninety public health nurses in the state.

We all realize in our work for infant welfare that the one person who can accomplish most in education is the public health nurse. Our Bulletins reach a certain number of people, but the people we need most to reach do not read these Bulletins. I feel that the state departments of health can do a great deal by

showing the nurses under their supervision and advice the importance of these prenatal and obstetrical problems.

I do not wish to start on the question of governmental work for prenatal and obstetrical care in the cities; it is an enormous problem. I would suggest to the chairman that he call on Dr. Bolt to talk about the work proposed in Cleveland, and then on someone who can tell about the work in New York City, by the committee of which I think Dr. Loewenstein is chairman, which has established a very interesting unit for prenatal care, under the auspices of the Women's City Club and the Henry Street Settlement.

Dr. R. A. Bolt, Chief, Bureau of Child Hygiene, Division of Health, Cleveland: I have jotted down a few words in regard to what we have attempted in Cleveland to meet the emergency of the war situation. When I arrived in Cleveland the first of June to take charge of the Bureau of Child Hygiene, I found that a number of nurses had joined the Red Cross and gone to France, and three or four of the best physicians skilled in child welfare work and pediatrics had enlisted for various forms of service. This left us rather short-handed, and we had to devise means to meet the emergency for our summer infant welfare campaign.

It occurred to me that it would be a very favorable time to carry on a certain amount of education with the mothers of the community and enlist their support for the campaign during the summer.

So I proposed that the affiliated mothers' clubs of the city should form what we might call a "Home Guard." In co-operation with the Bureau of Public Health Education I outlined a course of lectures in child welfare work, and sent out return post cards from the Health Department. This met with a hearty response, and a course of talks was given, outlining just what we contemplated doing. We then put it up to the mothers to conduct a health survey of a certain district in the city by a house to house canvass. This was done not merely for the purpose of getting certain data, but in order to bring the mothers into direct contact with actual conditions in Cleveland. It was not, however, the poorest, but in an average district. We had cards with definite questions. We wanted to find out the number of children in a family, with their ages. Then we asked, "Are the births registered?" Asked the name of the physician or midwife who delivered the last child; found out the milk station; whether there was adequate ice supply and an ice chest; found out what were the conditions as to general sanitation of home; flies, garbage, disposal, etc. In this way the mothers had their attention called to the fundamental factors that enter into the infant mortality problem.

A number of these mothers volunteered their services to help us in other ways. Some gave us automobile service, others helped in getting out birth certificates, and in many other ways, so we were able by volunteer service to get certain work done that would not have been done otherwise.

One of the acute war problems we are facing in Cleveland is the greatly increased demand for boarding homes for babies. A number of women are going into industrial work, and other conditions, such as the influx of foreign and negro population, have brought added problems. We have attempted to keep the baby with the mother as long as possible; where it was not possible we have tried to get one baby in a home. We have recently worked out a complete program whereby the selection of these homes, that is to say the primary nomination of them, may be by agents of the Humane Society, by health nurses or any similar source, but the investigation of the home goes through from the standpoint of the Bureau of Child Hygiene.

Dr. Meigs wanted me to speak as to our scheme for prenatal work. I am sorry Dr. Emmons' questionnaire did not get into my hands until just before I left Cleveland, but I think it illustrates fundamentally the point brought out, that is, the great need for municipal prenatal work.

In Cleveland in 1916, 19,016 births were registered. We must guard closely against putting too much stress on the interpretation of birth registration, because I think in most places it is very faulty. Until recently we did not get over seventy per cent. in Cleveland. Now it is probably between 85 and 90 per cent. Out of 19,016 registered births last year we had 2,032 die, and out of that number 634 died during the first two weeks of life. We have in Cleveland approximately 175 licensed midwives and approximately 1,200 physicians. These 175 midwives delivered 7,256 babies last year; the rest were delivered by general practitioners and obstetricians—and others, and some delivered themselves. So the acute problem for us to solve is to reduce mortality in the early weeks, and we conceived the idea of starting this maternity welfare work as a bureau of the Department of Health, like the bureau of child hygiene or tuberculosis or communicable diseases.

We are planning to put it into one district, called the University District. This district has been turned over to the Western Reserve University School of Applied Social Science, as an instructive district for public health nurses; the nurses are under the instruction of well trained public health nurses for a one-year course. They also receive some instructions from the chiefs of the bureaus in the Health Department in their special line of endeavor. This district has been going for nearly a year and has proved very valuable in giving us definite information and high grade public health nurses.

We felt it was better to start on a small scale in this district as a laboratory, and gradually extend it to other districts.

We propose to begin a campaign for this prenatal work, and ask an appropriation of ten thousand dollars next year to cover this work. We think we ought to get it, as we feel that our Health Department is about as far from politics as any in the country. I visited thirty cities last year, and, on coming back to Cleveland, I felt proud of the way our department had been elevated out of politics. We have a broad gauge educational policy, with a full time publicity

man; our chiefs are specialists in their lines, and they are out of politics. Until people appreciate the need of specialists in health work we can never do effective work in infant welfare.

The Chairman: I will ask Miss Rebecca Shatz, of the Henry Street Settlement, New York City, to tell us about the work that has recently been started in New York.

Miss Shatz: The work at the Maternity Center has been under the charge of Miss Anne A. Stevens. I will quote directly from Miss Stevens' report for the month of September to the Women's City Club. The report follows:

"For the purpose of brevity and clearness, I will give this report under the two divisions into which the work of the Maternity Center naturally divides itself.

"1. To provide medical supervision and nursing care to every pregnant woman in Zone 7, through different schemes of co-operation between existing agencies.

"A. A plan of co-operation between the Manhattan Maternity Hospital and the Henry Street Nursing Service has been arranged and is being followed, by which every patient who applies at the Manhattan Maternity Hospital is having more intensive prenatal nursing care under the direction of the medical staff of the Manhattan than it was possible for the nursing staff of the Manhattan Maternity to give these patients. By this plan the Henry Street visiting nurses will give prenatal nursing care to all the Manhattan outdoor cases in Zone 7, thus allowing the nursing staff of Manhattan Maternity to devote all of its energies to the prenatal nursing care of its indoor cases. By this arrangement the Henry Street Nursing Service has assumed the responsibility of the prenatal nursing care of 91 Manhattan Maternity outdoor cases, while the Manhattan Maternity will care for 27 indoor cases. This does not, however, represent all of the prenatal nursing care done by the Manhattan Maternity as their district is at the present time larger than Zone 7 and they are giving the prenatal nursing care to both their indoor and outdoor cases outside of Zone 7.

"Another phase of this scheme of co-operation between the Manhattan Maternity and the Henry Street Settlement Nursing Service is the training of the Manhattan Maternity pupil nurses by the Henry Street graduate nurses in a one month's district maternity service, as a result of which an effort is being made to supply nursing care at the time of delivery and post-partum nursing care to women delivered at their homes by doctors on the Manhattan Maternity Outdoor Service, private physicians and midwives in Zone 7, when either the doctor or patient ask for such nursing care. This effort to supply nursing care at the time of delivery is the direct outcome of the establishment of the Center by the Women's City Club.

"B. The Bureau of Child Hygiene of the Department of Health since it has no prenatal nurse in Zone 7, has instructed the nurses in Zone 7 to report to the Maternity Center the names and addresses of expectant mothers. A nurse

from the Maternity Center is to visit these patients and when possible arrange for their examination by the obstetrician at the clinic and for nursing care by the existing organizations in the Zone. Eleven such patients have been reported by these nurses this month and visited by a nurse from the Maternity Center.

'C. The Director of midwives at the Department of Health has instructed the midwives in Zone 7, of which there are 121, to register the names and addresses of their expectant mothers at the Maternity Center so that the Maternity Center may provide for their prenatal nursing care and to bring their patients to the Maternity Center Clinic for an examination by the obstetrician. Three midwives came to the first clinic bringing four patients, one of whom lived outside of Zone 7. When you consider the midwife situation and problem in a city of the size of New York you will realize that this is a most significant point.

"D. The New York Diet Kitchen Association, which provides a nurse for prenatal nursing care of its patients, but no doctor for their medical supervision, is considering a plan by which their nurses may bring patients to the Maternity Center Clinic for examination and advice.

"E. A plan is being considered by the Superintendent of the Nurses' Bureau of the Association for Improving the Condition of the Poor, by which their nurses will avail themselves of the Maternity Center Clinic in the same way.

"These last two schemes of co-operation have not been definitely inaugurated but are being considered by those organizations.

"F. The Charity Organization Society, which has no nurses doing prenatal nursing, but whose workers come in contact with many expectant mothers, will report the names and addresses of those mothers to the Maternity Center in order that medical supervision and nursing care may be arranged for.

"2. To make a study of existing maternity conditions in Zone 7.

"For this purpose it is necessary first to persuade all organizations coming in contact with expectant mothers in Zone 7 to report their names and addresses to the Maternity Center and to indicate whether or not they are being supervised medically and being given nursing care. 218 patients have been registered at the Maternity Center during September and many existing agencies have not been visited since the opening of the Center.

"As an indication of the fact that the women themselves in Zone 7 are welcoming this Maternity Center, you will be interested to know that six patients have voluntarily come to the Clinic, and that one woman came to the Clinic to get "modern and approved" instruction to send to her daughter in Italy. The Center received one call for a nurse to attend delivery before the office was opened and one other call for a nurse to attend delivery came from a doctor before the staff of the Henry Street nurses was organized for attendance at deliveries. Both these calls were answered and the doctors and families much pleased."

This concluded the discussion. The session then adjourned.

AMERICAN ASSOCIATION
FOR
STUDY and PREVENTION
OF
INFANT MORTALITY

TRANSACTIONS OF THE EIGHTH ANNUAL
MEETING

RICHMOND, OCTOBER 15-17, 1917

PART II—Proceedings of the Sessions on Eugenics,
Vital and Social Statistics and Public School
Education.

Headquarters of the Association
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EUGENICS

JOINT SESSION WITH THE RICHMOND ACADEMY OF MEDICINE

Tuesday, October 16, 1917

COMMITTEE

DR. MICHAEL F. GUYER, Madison, Wisconsin, Chairman
DR. ARTHUR D. DUNN, Omaha
DR. CLIFFORD G. GRULEE, Chicago
DR. WILLIAM F. LORENZ, Mendota, Wis.
DR. BORDEN S. VEEDER, St. Louis

DR. THOMAS W. MURRELL, Richmond, presiding

TOPICS

Venereal Diseases and Marriage. Committee Report.
Review of Wisconsin Eugenics Legislation.
The Effect of Venereal Diseases on Infant Mortality.
Prevention of Venereal Diseases as a War Measure.

RECOMMENDATIONS OF THE COMMITTEE

After reviewing the present situation and emphasizing the importance of a knowledge of the effects of venereal diseases upon offspring, the Committee urged strong and persistent effort toward further education of public sentiment in respect to the venereal diseases, and outlined some of the facts that should be common knowledge. Attention was directed to the means by which the St. Louis Children's Hospital has succeeded in compelling attendance of luetic children at the clinic.

The committee advocated the compulsory placing of educational placards in public toilets and gave a sample statement of what might well be included in such notices.

It expressed the belief that boards of health could advertise to good advantage in the newspapers regarding venereal diseases.

It favored those forms of legislation which grant state and municipal boards of health power and funds to establish practical regulations, rather than direct legislative enactments aimed at physicians and patients individually.

It expressed the opinion that every state should have well-equipped laboratories for free diagnosis of venereal diseases and felt that not only should there be free treatment for the indigent, but that it would be economy in the long run for the state to assist physicians in providing the more expensive forms of treatment for all patients.

It maintained that there should be beds for venereal patients in general hospitals, and recommended that the Wassermann test be made a routine matter in every public hospital, prison, workhouse and institution for delinquents or defectives and thought that it might advantageously be applied to certain classes of venders and servants.

COMMITTEE REPORT ON VENEREAL DISEASES AND MARRIAGE, WITH RECOMMENDATIONS

MICHAEL F. GUYER, Ph. D., Chairman, University of Wisconsin, Madison

In appointing a committee on Eugenics to report in 1917 it was suggested by the last President of the Association that the control or prevention of the marriage of the unfit might well be the subject of the report. Unfitness for marriage, insofar as it is a condition which permits of any degree of control at the present time, centers mainly in the questions of insanity, epilepsy and feeble-mindedness on one hand, and of venereal diseases on the other. Inasmuch as a very active national organization has been at work on insanity for several years and another dealing with feeble-mindedness has just been launched, to say nothing of several active state organizations engaged in similar efforts, it seemed that the present committee might well concern itself with the question of venereal disease, particularly in its bearing on the welfare of offspring.

While, strictly interpreted, eugenics is concerned only with those hereditary aspects of the well-being of posterity represented in the germ cells, and not with influences which may modify the young during pregnancy, the committee has felt justified in disregarding this narrower usage in the present instance, since nowhere can one find wastage of offspring more surely in progress than in the train of active syphilis. Any agent which creates a differential birth-rate or death-rate, as syphilis and gonorrhea undoubtedly do, must in the last analysis fall within the scope of Eugenics.

Much has been written about the venereal diseases in recent years from all points of view—medical, hygienic, social and moral. While cognizant of all aspects, the committee desires to emphasize the question of prevention of the effects of these diseases upon offspring. Once the attention is focussed on congenital syphilis, however, it immediately becomes apparent that the congenital phase is but one fragment of the whole problem and that prevention of the condition in offspring becomes largely a question of prevention and cure in adults.

With many thousands of our young men being concentrated in mobilization and war camps, the whole question is an unusually press-

ing one just now. It is the universal experience that under such conditions venereal diseases increase greatly and this, of course, is but the prelude to their rapid spread throughout the nation at large with their inevitable train of disabled men, wrecked wives and mothers and ruined offspring. In the present war we already have the testimony from practically all of the countries engaged that many men are being incapacitated by venereal disease, and that in consequence an alarming increase of venereal disease is also occurring among the civil population.

As to the prevalence of venereal disease one can only guess. We have a certain amount of information on particular classes, but nothing on the population as a whole. It is obvious that tests on a group of supposedly healthy men would show a smaller percentage of cases than tests applied to a group of sick men such as one finds in hospitals, and that averages found for men in general would be far too high for women and children. Moreover, the prevalence undoubtedly varies in different parts of the United States and is not the same in urban and in rural communities. Lastly, studies made in St. Louis, Baltimore, and elsewhere, show that syphilis is from two to three times as prevalent in the negro as in the white race.

The appalling frequency found in certain selected classes, however, reveals the widespread ramifications of syphilis and gonorrhea and leads us to believe that their occurrence is far greater than was realized in the past. We are learning, for instance, that syphilis is a very important factor in producing many thousands of disabilities and deaths that were formerly attributed to other causes.

After pointing out that from 22 to 25 per cent. of the patients entering Bellevue Hospital give positive reactions when tested for syphilis, the monthly bulletin of the Department of Health of New York City (March, 1915), expresses the belief that proper tests applied to the public at large would show that one-tenth of the adult population of New York City is syphilitic. Dr. Edward B. Vedder, captain in the Medical Corps of the U. S. Army, estimates (*Social Hygiene*, July, 1916) that about 20 per cent. of the young adult male population of the class from which the army is recruited in times of peace, and that about 5 per cent. of the young men entering our colleges, are syphilitic. He regards syphilis as a greater menace to

public health than any other infectious disease, not even excepting tuberculosis. All authorities agree that gonorrhea is more widespread than syphilis.

Impossible as it is to get accurate data for the population at large, even a cursory examination of the available facts shows the gravity of the situation. And when we take into account the further fact that physicians and sanitarians already know enough about the causes, prevention and cure of venereal diseases to insure their sanitary control and gradual eradication if public opinion would permit of the practical application of this knowledge, it is evident that failure to cope with the situation must be charged to our ignorance, our carelessness, our prudery and our bigotry as a people. Unquestionably the backwardness of public opinion and the unfortunate confounding of this sanitary problem with questions of morals are the chief impediments to bringing these diseases under control.

Since an enlightened public opinion is an indispensable preliminary to further progress, strong and persistent efforts should be devoted to the task of education. The committee believes that the greatest advancement will be secured through a frank, unsentimental, scientific statement of the facts to the people. The public must learn that practically every prostitute is a center of dissemination; that there is a steady procession of these diseases from the women of the street to the women and children of the home; that the diseases in question may be conveyed through kissing and by various articles used by or on infected people, particularly implements of the kitchen, the toilet and the barber shop; that very many of the serious afflictions of later life, such as paresis, locomotor ataxia, certain forms of rheumatism, blindness, heart disease, arterial sclerosis and aortic insufficiency, as well as much general impairment of health are caused exclusively or mainly by an earlier infection of syphilis. It should be well known that early stages are usually curable, that practically all stages can be benefited by treatment, and that they can be controlled as regards contagion.

It should be known that some 25 per cent. of all blindness is caused by gonococcus infection and that nearly all blindness of infants acquiring blindness at birth or shortly thereafter is due to this germ; that to it also is charged some 80 per cent of the serious inflammatory diseases peculiar to women which often necessitate

hazardous operations and frequently result in death or permanent invalidism; that an incompletely cured case is dangerous and that a man in this condition, thinking himself well, may years later marry and give the disease to his wife, making her an invalid for life and unable to bear children, or causing blindness in a child when born.

The importance of early diagnosis and intensive treatment as well as the appalling results of neglect cannot be too strongly emphasized, nor can the necessity of continuing treatment until the patient is completely cured. One of the most insidious factors in the situation lies in the fact that the visible symptoms of the disease in question usually disappear long before the cure is complete so that it is difficult to convince the patient that he needs further treatment. This is particularly true of syphilis.

As a general rule no syphilitic should contemplate marriage unless the Wassermann test remains negative after at least a year of careful treatment and continues negative after a provocative Wassermann. Inasmuch as syphilis frequently and sometimes early in its course attacks the central nervous system, it is advisable for the patient, even after the blood test continues negative, to have a test of the spinal fluid made because of the danger of a cerebro-spinal form. While such a patient would possibly not convey the disease to his wife or children, he should be aware before marriage of his own likelihood of being stricken with paresis or other nervous forms of the malady and thus becoming a burden on his family.

As to the effects on progeny, improved diagnosis shows that the transmission of syphilis to offspring is far more common than was previously thought. Studies by Jeans (*Am. Jour. Dis. of Chil.*, Jan. 1916), for instance, show how important it is to investigate the other members of each patient's family. Numerous cases of latent syphilis are thus being unearthed. Many pathological conditions in children of which formerly the causes were obscure are now known to be the result of syphilitic infection. Not only is there a waste of potential citizens to the state by miscarriage and death twice as great in syphilitic families as in similar families which are not syphilitic, but the children which survive are likely to be shot through and through with organic defects and degenerative changes. Congenital syphilis operates most profoundly, perhaps, through markedly harmful malnutri-

tion, although it is not infrequently accompanied by a rash, a palpable spleen, a rhinitis or coryza, or a desquamative dermatitis. Moreover, widespread pathological lesions are likely to occur throughout various organs of the body. Of the many different conditions which may result, often tardily, from this infection, in children, the most usual perhaps are affections of the central nervous system, bones, joints, eyes and skin. In spite of recent statements, based on defectives in institutions, expressing doubts as to a causative connection of syphilis with feeble-mindedness, careful clinical tests (Veeder: *Am. Jour. Med. Sci.*, Oct. 1916) on one hundred children who manifested the results of so-called "tardy" syphilis, showed approximately one-fourth to be mentally deficient, and Jeans and Butler (*Am. Jour. Dis. Chil.*, Nov. 1914) found five times as much feeble-mindedness in syphilitic as in non-syphilitic families of the same class. While it is seldom clear just which is cause and which effect in such cases, it is a noteworthy fact that syphilis and feeble-mindedness often go hand in hand.

With children as with adults the importance of early diagnosis should be emphasized, since treatment of the infantile type is hopeful while therapeutic results on the "late" transmitted form are likely to prove disappointing. Jeans and Butler (*loc. cit.*) found that thirty-three per cent. of syphilitic children over thirteen months of age showed permanent disabling damage of the nervous system and eighteen per cent. long continued disabling impairment of vision.

Urgent means are needed to compel the attendance of luetic children at the clinic until properly discharged. It is a common experience that many never are returned after the initial visit or are brought for a short period only, possibly until the acute symptoms are cleared up. This keeping of the clinic and the home in contact is a function that might well be exercised by some sort of a social service department. The St. Louis Children's Hospital has been able to get compulsion into effect through the Juvenile Court on the ground that syphilitic children not under treatment can be brought into court as "neglected children." The mere knowledge that treatment could and would be enforced through the court, if necessary, usually brought indifferent or recalcitrant parents to time because they feared the publicity which might attend appearance in court.

In addition to the lecture and exhibition methods now in vogue we believe that much good can be done by preparing educational placards and having them placed, by law if necessary, in public and semi-public toilets used by men, such as those of hotels, saloons, boats, barber shops, railway cars and stations, stores, factories and shops. To give them the necessary weight of authority and to combat quackery such cards should bear the signature of the City or the State Board of Health. They should drive home their message by the use of non-technical language, short sentences and emphasis of type. The following statement, though not intended particularly as a model will give an idea of what the committee thinks might well be included in such placards:

NOTICE OF THE ^{City} State BOARD OF HEALTH.

BEWARE OF SEX DISEASES

Syphilis (commonly called pox, lues, or "blood disease") is as common as tuberculosis. **Gonorrhea** (sometimes called clap or "a dose") is still more common.

Both of these are Very Dangerous Diseases, not only to You who have it, but to your Associates, particularly your Wife and Children.

Though commonly contracted through sexual intercourse either of these diseases may be transmitted by contact with the articles, such as clothing, towels, drinking cups and other utensils, used by infected people. A person with syphilis may transmit it by kissing, since the germ can enter the body through a very slight break in the skin or mucous membrane.

Both diseases are usually Curable, if taken Early. Each requires Very Careful treatment, and that for syphilis must be long continued (1 to 3 years), even though the symptoms of the disease have disappeared. The germs of either of these diseases may linger for years in improperly treated cases and may infect others or finally ruin the patient himself.

If you are infected see a reputable physician (Not an Advertising "Specialist") at once, and take treatment until you are pronounced cured. If you cannot afford the services of a private physician call for Free blood tests, advice and treatment at the (city or state) Board of Health Dispensary, _____ Street. Clinic hours from _____ to _____ o'clock daily.

Beware of Quacks, Self-Cures and so-called Specifics for Blood Poison!

Practically All prostitutes have or have had one or both of these diseases and are a sure source of infection. Remember that sexual intercourse Is Not Necessary to keep a man in good health.

At least one-fourth of all blindness, and practically all blindness found in babies, is due to gonorrhea. A vast proportion of the surgical operations on women and many deaths are likewise due to gonorrhea.

Softening of the brain (paresis) and other forms of insanity, and many afflictions of other organs of the body, as well as a large proportion of sudden deaths are caused by a syphilis perhaps thought cured and long ago forgotten. If you have ever taken treatment for syphilis, in order to be sure that you will not infect your wife or taint your children, have a blood test made before you marry.

In addition to this means of education we believe that boards of health could advertise in the newspapers to advantage. Judging from the profusion of notices to be found in such papers as accept the advertisements of so-called men's specialists and quack nostrums, a large and impressionable audience should be reached by this means. Some departments of health, in fact, are already successfully using the agency of newspapers. The New York City Board of Health, for example, advertises as follows:

Venereal Diseases. Confidential Advice Regarding Gonorrhea, Syphilis and Sex Diseases Can be Obtained Free at Room 207, the Department of Health, 149 Centre Street, 9 A. M. to 12 M. daily, Sundays and Holidays excepted. Avoid Advertising Specialists and Patent Medicines.

The committee also believes that any group of individuals sufficiently in earnest can with relatively little effort succeed in interesting Women's Clubs, Mothers' Clubs, Teachers' Organizations, Commercial Clubs or almost any organization of serious purpose in their state, in agitating the question sufficiently to bring about whatever legislation or board of health regulations may be necessary to enforce the posting of such placards as those recommended above, and to aid in securing the establishment of public laboratories, clinics and dispensaries.

As to legislation in general, without disparaging in the least what has been done in the various states in a more or less experimental way, the committee believes that those forms of legislation which grant state and municipal boards of health power and funds to establish what in their experience may prove to be wise regulations, are preferable to direct legislative enactments aimed at physicians and patients individually. Any law or regulation will be successful just in the proportion that the patient sees it is for his own good. While it is highly desirable to have a record of every case treated by physicians reported to some central bureau, no successful method of accomplishing this end has, to the knowledge of the committee, yet been devised. So greatly is the scandal of publicity feared by venereal patients that, in the opinion of the committee, attempts to enforce so-called "reporting" laws will drive such patients from honest physicians who report, to quacks and proprietary medicines. If merely the number of patients treated is reported without name, then little accurate information is gained because even if all physicians can be induced to report, since such patients make frequent changes, the same individual

will be reported repeatedly by different physicians and institutions.

It is imperative that it be made easy for those suffering from venereal diseases to secure advice and treatment. To this end every state should have thoroughly equipped laboratories in which diagnosis of venereal diseases shall be made free of charge to physicians or patients. This is already the practice in some states. Such institutions should be equipped not only to make routine Wassermann tests but such supplementary and corroborative tests as atypical or obscure cases may necessitate. It is clear, moreover, that states and cities must assist physicians more and more, not only in diagnosis, but in helping to provide the more expensive forms of treatment. Money used in supplying neosalvarsan for treatment of syphilis, or vaccines for gonorrhea, is well spent by any state or municipality.

While for the indigent there must be free treatment or treatment at a nominal fee at public dispensaries, there should also be beds for venereal patients in general hospitals. If all such patients are compelled to go to special institutions, then, because of the social stigma, many who should have treatment will conceal their condition and suffer the appalling results of neglect. The absurdity of hospitals refusing to admit patients avowedly suffering from venereal disease is evident since it has been shown in several hospitals which now perform a Wassermann reaction on all patients that from 15 to 25 per cent. of patients admitted for other causes are syphilitic.

The Wassermann test should become a routine matter in every public hospital, prison, workhouse and institution for delinquent, insane or feeble-minded, at least, and it might well be insisted on for such vendors and servants as come into close contact with food materials.

In the hope that some of its suggestions may prove of value either to those who are already actively combatting venereal diseases or to those who have not yet entered upon such a campaign, the committee, in conclusion, recommends that printed copies of its report be sent to the U. S. Public Health Service, to congressmen, to the medical officers in charge of the health of the United States troops, and to the several state boards of health.

Respectfully submitted,

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REVIEW OF WISCONSIN "EUGENICS" LEGISLATION

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Much of the so-called eugenic legislation in Wisconsin would be more accurately classed under the caption of sex hygiene, since it consists of health measures aimed more immediately at the prevention of venereal disease in the present generation than toward the preservation of the hereditarily more desirable. But even such measures must be indirectly of eugenical significance, either positively or negatively, since they are concerned with diseases which have direct bearings on death rates and birth rates. Sterilization by gonorrhea modifies birth rates no less certainly than destruction by war, and syphilis is probably as responsible for the extinction of family lines as is voluntary limitation of offspring. On the other hand, as regards the law for the sterilization of certain undesirable classes, the purpose is directly eugenical.

The enactment which has attracted most attention and brought forth most comment both within and without Wisconsin is probably the one commonly termed "the eugenic law relating to marriage." It is in reality a health measure intended to prevent the transmission of venereal disease through the marriage relation. Passed hurriedly during the closing days of the legislative session of 1913, insufficient attention was given the wording of the provision and it became a source of much confusion and acrimonious discussion. The unusual publicity incident to the debate, however, resulted in a very wide education of citizens regarding the nature and the purpose of the act.

The original statute (Section 2339m of the statutes, 1913) provided in its first section that "All male persons making application for license to marry shall at any time within fifteen days prior to such application, be examined as to the existence or non-existence in such person of any venereal disease, and it shall be unlawful for the county clerk of any county to issue a license to marry to any person who fails to present and file with such county clerk a certificate setting forth that such person is free from acquired venereal diseases so nearly as can be determined by physical examination and by the

application of the recognized clinical and laboratory tests of scientific search."

One of the controversies which immediately arose was as to whether the law, in specifying "the application of the recognized clinical and laboratory tests of scientific search" required a Wassermann test for syphilis. If so, then it was demanding an examination that only a few physicians in the state could make, and even these could not do it for the fee of three dollars specified in section 2. The law also made it compulsory for the official county or city physicians of the state to examine, free of charge, indigents who desired to marry. After much agitation the question finally reached the attorney-general of the state. He rendered an opinion which read in part as follows:

"If there are clinical and laboratory tests, such as the Wassermann test, which require special study and special apparatus for their application, and which only a very small per cent of the licensed physicians of scientific attainments can apply, I am convinced that the law was not intended to require and therefore does not require such tests. I do believe that the law was enacted on the assumption that physicians, more than any other class of citizens, would appreciate the wisdom and necessity therefor and would co-operate to the best of their ability in its enforcement. The purpose was not to provide a new source of revenue for the doctors; nor, on the other hand, was there an intent to place an undue burden on them. No doubt reliance was placed on the well-known public spirit of the medical profession and the fee fixed at a figure which would cause hardship neither to the applicant nor to the examiner. It is, of course, apparent that physicians can be found who will issue the required certificates no matter what tests the law may be deemed to require, so that, unless the reputable physicians will co-operate to make the law effective (and if they will not, no law of the kind can be successful) the law must largely fail to accomplish any good. But I am convinced that the great mass of reputable physicians will desire to save the law and the profession from disrepute, and will therefore endeavor to carry out the spirit of the enactment and hold themselves ready to give such examinations and tests as the ordinary reputable physician of scientific attainments is equipped to make and may reasonably be expected to make for the fee prescribed. Otherwise it is plain that the charlatan of the profes-

sion will seize on this law as a new source of revenue and thus bring the law into disrepute and bring dishonor to their profession. I am of the opinion that the law must be given a practicable and workable construction, rather than one that will defeat its purpose and possibly render it unconstitutional and void; that its obvious purpose was to require only such an examination and test as the ordinary reputable licensed physician of scientific attainments is equipped to make, is capable of making, and could reasonably be expected to make for the fee of \$3.00, and that the 'recognized clinical and laboratory tests of scientific search' do not include the so-called Wassermann tests, nor such tests as can be made only by specialists, nor such as require special and expensive equipment or long laboratory experiments."

Although many of the physicians of the state accepted the interpretation of the attorney-general and examined candidates for marriage accordingly, the majority of the physicians refused to do so. The latter felt themselves all the more justified when in a test case in Milwaukee the circuit judge ruled that the law was unconstitutional on the ground that it placed an undue and unreasonable restraint upon the solemnization of marriages. It was not until the supreme court of the state had declared the law constitutional that most of the medical men capitulated. Even then a minority of physicians kept up an active opposition.

In 1915 an attempt was instituted to have the measure repealed. Various objections were made, among them, that the law was unjustly discriminatory in that it applied only to men. The answer to this was made by the women themselves, who poured in representatives from women's organizations all over the state, insisting that the law be made to apply to women also if such a measure were necessary to keep it in force.

This challenge was not accepted and the law still applies to males only. The legislative committee hearings at the time, although disclosing an active opposition on the part of a small group of physicians, revealed an unexpectedly strong sentiment throughout the state in favor of the law. The following incident may be cited as an example of a widely prevailing opinion. An assistant prosecuting attorney of Milwaukee, appearing before the legislative committee, said that when the law was first passed he had regarded it as one of the best jokes

of the season, but that after watching its workings for a number of months he had become convinced that it was one of the most beneficial pieces of legislation ever passed in Wisconsin.

During the legislative session of 1917 a thorough revision of the law was made in order to do away with ambiguities and to take advantage of the experience gained in the administration of the law during the four years of its existence. The new law (Chapter 212, Laws of 1917) while less exacting in certain respects, is more practicable. It demands of the physician only a "thorough" examination of the applicant and "the application of the recognized clinical and laboratory tests of scientific search, when in the discretion of the examining physician such clinical and laboratory tests are necessary." It also provides for a free microscopical examination for gonococci at the State Laboratory of Hygiene, or a Wassermann test for syphilis at the State Psychiatric Institute upon the request of any physician in the state.

The more important sections of the law now read as follows:

"All male persons making application for license to marry shall at any time within fifteen days prior to such application be examined as to the existence or non-existence in such person of any venereal disease, and it shall be unlawful for the county clerk of any county to issue a license to marry to any person who fails to present and file with such county clerk a certificate setting forth that such person is free from venereal diseases so nearly as can be determined by a thorough examination and by the application of the recognized clinical and laboratory tests of scientific search, when in the discretion of the examining physician such clinical and laboratory tests are necessary. When a microscopical examination for gonococci is required such examination shall upon the request of any physician in the state be made by the State Laboratory of Hygiene free of charge. The Wassermann test for syphilis when required shall upon application be made by the Psychiatric Institute at Mendota free of charge. Such certificate shall be made by a * * * physician, licensed to practice in this state or in the state in which such male person resides, shall be filed with the application for license to marry, and shall read as follows, to wit:

I, (name of physician) being a * * * physician, legally licensed to practice in the state of....., my credentials being filed in the office of....., in the city of,

county of, state of, do certify that I have this
 day of, 19.., made a thorough examination of
 (name of person) and believe him to be free from all venereal diseases.
 (signature of physician).

"Such examiners shall be physicians duly licensed to practice in this state, or in the state in which such male person resides. The fee for such examination, to be paid by the applicant for examination before the certificate shall be granted, shall not exceed two dollars. The county or asylum physician of any county, shall, upon request, make the necessary examination and issue such certificate, if the same can be properly issued, without charge to the applicant, if said applicant be indigent."

Other items of the law (section 2339m, Laws of 1913) pertain to the settlement of disputes, appeals, persons who leave the state to escape the provisions of the law, and penalties for county clerks who unlawfully issue licenses, or for physicians who make false statements in their certificates. Since these provisions are of secondary interest for our purposes they need not be reviewed.

An additional law (Chapter 783, Laws of 1917) passed in 1917, requires that any person (man or woman) who has ever been affected with gonorrhea or syphilis must, before applying for a license to marry, secure from one of the state laboratories a certificate setting forth the fact that the necessary examination and tests have been applied and that the candidate is not in the infective or communicable stage of either of these diseases.

There can be no doubt that, in general, public opinion in Wisconsin is strongly in favor of these measures. This is reflected in the legislative vote which was almost unanimous for the original law. One not infrequently reads in articles written by supposed authorities who do not live in the state, about the folly or the collapse of the Wisconsin prenuptial physical inspection law. As a resident of the state who, though originally skeptical as to the advisability of the measure, has been following its working with the keenest interest. I find myself greatly puzzled to know the source of information that enables these non-residents to speak with so much assurance. Certainly they do not get their knowledge from the State Health Officer, the one person who knows in greatest detail how the law is working out, for he feels very

well satisfied with the measure and is convinced that it is accomplishing much good. It has already prevented the marriage of a considerable number of people infected with venereal disease in a communicable form.

The charge that craftily disposed candidates can evade the provisions of the law is doubtless true, but this same indictment can be brought against almost any law, including those concerning murder, arson or theft. Nevertheless, we do not repeal these laws on this account. It is only fair to look at what a law accomplishes as well as at what it does not.

A small number of physicians still oppose the statute, but the noise they make is out of all proportion to their relative numbers. Most of the physicians of the state are apparently trying conscientiously to carry out the intent of the enactment. An occasional applicant for a marriage license resents it, but such cases are decidedly in the minority. Opposition has about disappeared.

Most applicants for a marriage certificate are strongly in accord with the purpose of the requirement and many who have suffered from venereal disease welcome the opportunity of finding just what their condition is and of gaining information about matters of which they were ignorant. Even men from other states, contemplating marriage, have made application to the Wisconsin State Health Officer for examination. In fact, it is not unusual to have young men apply for a preliminary examination long in advance of marriage so that they may have ample time, if necessary, for medical treatment.

Undoubtedly education of the public to the dangers of active and latent venereal disease is one of the chief benefits of the law. Most men are neither vicious nor intentionally dishonest in marital matters. They are ignorant. Hence the good that can be accomplished by education alone can scarcely be over-estimated.

Of the practicability of the "compulsory reporting" feature specified in one section of another law relating to social diseases, passed by the legislature of 1917, there is much less unanimity of opinion among the physicians with whom I have been able to confer. The State Health Officer believes that it will work out satisfactorily. The law requires that any physician licensed to practice medicine in this state who is called upon to attend or treat any person infected with gonorrhea or

sypilis in its communicable state, shall report to the State Board of Health in writing, at such time and in such manner as the State Board of Health may direct, the age and sex of such person and the name of the disease with which such person is afflicted. Such report shall be made on blanks furnished by the said board."

This statute further requires that such venereal patients take treatment until the disease in question is no longer communicable and makes provision for their restraint for treatment in a county or state institution if they refuse to take treatment otherwise. Each county of the state is required to make provision for adequate free treatment of indigent individuals. The State Board of Health is also directed to prepare for free distribution upon request among the citizens of the state, printed information and instructions concerning the dangers from venereal diseases, their prevention and the necessity for treatment.

The law (section 561jm of the statutes) authorizing the sterilization of criminals, insane, feeble-minded and epileptic individuals was passed during the legislative session of 1913. It reads as follows:

"The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

Section 1. There is added to the statutes a new section to read: Section 561jm. The State Board of Control is hereby authorized to appoint, from time to time, one surgeon and one alienist, of recognized ability, whose duty it shall be, in conjunction with the superintendents of the state and county institutions who have charge of criminal, insane, feeble-minded and epileptic persons, to examine into the mental and physical condition of such persons legally confined in such institutions.

2. Said Board of Control shall at such times as it deems advisable submit to such experts and to the superintendent of any of said institutions the names of such inmates of said institution whose mental and physical condition they desire examined, and said experts and the superintendent of said institution shall meet, take evidence and examine into the mental and physical condition of such inmates and report said mental and physical condition to the said State Board of Control.

3. If such experts and superintendent unanimously find that procreation is inadvisable it shall be lawful to perform such operation for the prevention of procreation as shall be decided safest and most effective; provided, however, that the operation shall not be performed except in such cases as are authorized by the said Board of Control.

4. Before such operation shall be performed, it shall be the duty of the State Board of Control to give at least thirty days' notice in writing to the husband or wife, parent or guardian, if the same shall be known, and if unknown, to the person with whom such inmate last resided.

5. The said experts shall receive as compensation a sum to be fixed by the State Board of Control, which shall not exceed ten dollars per day and expenses, and such experts shall be paid for the actual number of days consumed in the performance of their duties.

6. The record taken upon the examination of every such inmate shall be preserved and shall be filed in the office of said Board of Control at Madison, Wisconsin, and semi-annually after the performing of the operation the superintendent of the institution wherein such inmate is legally confined, shall report to said Board of Control the condition of such inmate and the effect of such operation upon such inmate.

7. The State Board of Control shall report biennially in its regular biennial report the number of operations performed under the authority of this section and the result of such operations.

8. There is hereby appropriated out of the State treasury, not otherwise appropriated, a sufficient amount of money to carry into effect the purposes of this section not to exceed two thousand dollars.

Section 2. This act shall take effect upon passage and publication.

Approved July 30, 1913."

The State Board of Control is proceeding with great caution in exercising the authority granted it by the legislature in this statute. Shortly after the law was enacted Dr. Maude R. Williams, a licensed physician and surgeon, was appointed to make a careful study of certain cases in the State Home for Feeble-Minded. Not only were the patients themselves examined, but their family history was traced as

far as possible. In certain cases where duly constituted authorities pronounced procreation inadvisable (Cf. Thirteenth Biennial Rep't. of the State Board of Control of Wisconsin, p. 6) sterilization was practiced according to the specifications of the law. The operation of vasectomy was performed upon twenty-two males during the months of July and August, 1915, and that of salpingectomy upon thirty-five females during the summer of 1916. Up to date about one hundred feeble-minded individuals have been so treated, of whom some sixty were women. All such patients have made speedy recovery and no bad physical effects have resulted. All are being kept under observation and reports are being made to the State Board of Control from time to time. No serious opposition to the operation for sterilization has been encountered. On the contrary, some of the more intelligent parents of the patients have favored it. When possible, individuals so treated are removed from the institution to private homes in which good treatment is assured, thus making room for others who are on the long waiting list.

EFFECT OF VENEREAL DISEASES ON INFANT MORTALITY

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The two diseases with which we are concerned in this paper are syphilis and gonorrhea. It is difficult to get accurate information about the actual facts of these diseases in causing infant deaths. In the case of gonorrhea the effect of the disease in the actual causation of death of the infant is almost negligible. In the case of syphilis the actual number of deaths from the disease itself seems small compared with the deaths from respiratory disease or from disease of the intestinal tract. Tuberculosis even is responsible for a much larger number of infant deaths than congenital syphilis. Why then are congenital syphilis and gonorrhea diseases to be taken seriously in their relation to infant mortality?

In the discussion of this subject the term "infant mortality" will receive a broad application. It will include actual deaths, the deaths of children in the uterus, the effects of these diseases upon birth rate by preventing conception, and the deforming effects of these diseases.

Gonorrhea is of importance because of its effect in preventing conception. Its almost invariable mode of transmission is by sexual contact. In a woman it sets up an inflammation in the vagina or cervix. This inflammation may spread to the ovaries, the tubes or the inner surface of the uterus. One or all these parts may share in the inflammation. The ultimate result is to make impossible the giving birth to a child. In the case of the male the disease may cause inflammation of the testicles or of the organs which transport the spermatozoa from the testicles. In either case the male is incapable of transmitting to the female the germ which must fertilize the ovum.

This disease, as you all know, is widespread. It is, however, impossible to determine what percentage of the males or females who have the disease in its local form are rendered sterile as a result of the complications just mentioned. It has been estimated that from 30 to 50 per cent. of all women who have the local disease in the vagina are subsequently rendered sterile by it.¹ Even assuming that these figures

¹ Royal Commission on Venereal Diseases. Final Report, 1916.

are exaggerated the effect on birth rate is of great significance. Its bearing upon the renewal of the population after the war for all nations involved is important. The disease is regarded far too lightly. If the soldiers at the front and the married and the unmarried women at home or elsewhere clearly understood the significance of gonorrhea in preventing conception, the disease might be taken more seriously.

An infant born of a mother whose vagina is the seat of an acute gonorrheal infection is submitted to the hazard of a disease called gonorrheal ophthalmia or gonorrhea of the eye.² About seventy per cent. of all cases of ophthalmia of the new born are due to gonorrhea, and twenty-five per cent. of all cases of blindness are attributed to gonorrheal infection. This infection is picked up as the infant passes through the vagina in the birth process. It is, therefore, in causing blindness that gonorrhea is of importance in infancy. It is one of the deforming effects of the disease which are included under the broader interpretation of infant mortality.

Syphilis on the other hand, has an intimate connection with infant deaths. As an agent in the actual destruction of infant lives its importance is far-reaching. The figures recording the actual deaths from congenital syphilis may seem small. But it must be remembered that the disease begins its ravages in the fetus and that two individuals are particularly concerned—the mother and child.

The mode of transmission of the disease is clear if the cause is understood. Syphilis is the result of an infection by a minute organism called the spirochete pallida. If the male has a local sore which has in it these organisms and if he has intercourse these minute organisms are transferred to the female. A local sore results in the female organs as a result of the growth of these organisms. From this local sore the organisms find their way through the tissues into the blood stream. If the mother becomes pregnant the spirochetes are transported by her blood into the blood stream through the placental circulation of the fetus and are disseminated through its tissues. It therefore, becomes clear that the mother of every syphilitic child is herself syphilitic.

The disease may also be conveyed to the fetus from the infected mother through the ovum. This mode of transmission presupposes again a syphilitic mother.

²Royal Commission on Venereal Diseases. Final Report, 1916, page 30.

Whether or not the father can transmit the organism directly through the semen without the mother's being diseased is a matter of dispute. The important fact is that syphilis probably in every instance is transmitted to the infant directly from the mother. If the fetus has received from the mother into its circulation the organism of syphilis, the result will be either the death of the fetus in the uterus or the birth of a syphilitic child.

It would be of interest to know the actual number of syphilitic pregnancies each year. It is impossible, however, to secure any accurate statistics. If still births and miscarriages are included in an estimate of the incidence of congenital syphilis the number of actual cases is larger than the present statistics show. Another difficulty in arriving at an accurate estimate of the effects of syphilis is the establishment of the relation of syphilis to stillbirths. Statements have been made that 50 per cent. of all stillbirths are due to syphilis. This is probably an exaggeration but is instructive in showing the need of more careful investigation into the relation of syphilis to stillbirths and miscarriages. A personal communication from Dr. Jacob Sobel of the New York City Health Department, Division of Baby Welfare, bears directly on this subject. He writes:

"An analysis of the stillbirth certificates recorded with the Department would not give accurate information, since it is well known that in a large number of instances the cause of the stillbirth is not recorded as due to syphilis, when such is the case, for obvious reasons. Similarly, many cases of death during the first month of life, which are due to syphilis, are ascribed to other causes.

"The whole subject of stillbirths is one that offers a fertile field for investigation. Dr. Thomas has requested that a special study be made along these lines, and post-mortem examinations, under the supervision of Dr. Norris, be performed at Bellevue Hospital. The names of several inspectors have been submitted, and the work will probably be taken up in the immediate future.

"The question of stillbirths and premature births is a broader one than that of syphilis only; alcoholism, syphilis, retroflexion, diseased adnexa and uteri, general constitutional diseases, toxemias, (pregnancy, plumbism, etc.) placental degeneration, and other factors will have to be closely studied. The whole subject of syphilis in relation to

stillbirths and infant mortality is one in which we feel morally certain that this disease is a decided contributing factor in the direct and indirect causes of infant mortality, and yet it is one in which it is almost impossible to 'back up' our conviction by figures."

In order to make concrete the general statements regarding the effects of syphilis as a cause of stillbirths, the following table is instructive. The figures record the results of the pregnancies of 53 syphilitic women attended at the Tarnier clinic from January 1 to August 31, 1916.³

	Last Pregnancy	Previous Pregnancy
1. Pregnancy posterior to syphilitic infection—		
Miscarriage	3	15
Macerated infants or still born	20	18
Exencephaly	1	0
Infants dead before mothers left the clinic	3	0
Infants dead before 1st year	0	10
Infants living	15	5
2. Pregnancy antedates the syphilitic infection—		
Living infants (infection of mother surely or very probably during the pregnancy)	9	0
Stillbirths (infection of mother during pregnancy)	2	0
Living infants (born after a series of miscarriages or stillbirths)	0	11
Infants born dead (mother albuminuric, having a series of miscarriages and stillbirths)	0	5
History of child unknown	0	1

The above table shows that in those pregnancies which are posterior to the syphilitic infection there were 56 stillbirths, miscarriages and macerated infants in 90 pregnancies, or 62 per cent. The term posterior is used to indicate a syphilitic infection of the mother antedating her child bearing period. These statistics are not cited with a view to indicate that the pregnancies of syphilitic mothers result in over 50 per cent. of stillbirths. These figures, however, are illustrative of the possible effects of syphilis in a series of mothers who were under careful observation and who for the most part had secured anti-syphilitic treatment.

The records of the Babies Hospital, New York City give the following statistics on the frequency of stillbirths and miscarriages in syphilitic families.

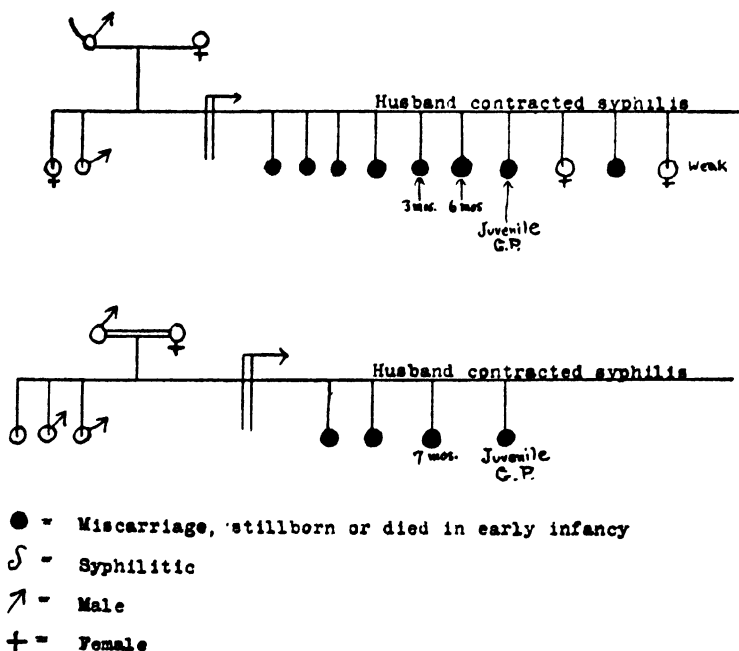
Cases of congenital syphilis	193
Total number of pregnancies in the families of the 193 syphilitics	427
Still births and miscarriages	123
Percentage of still births and miscarriages of the total number of pregnancies	22.4

³La Syphilis et L'Armée—G. Thibierge, page 31.

The 193 cases of congenital syphilis represent the number of infants with this disease in a total of 12,180 admissions to the hospital. The figures for stillbirths and miscarriages show a striking contrast to those quoted from Tarnier's Clinic. They are given here to indicate the difficulty that is presented in getting accurate data on this point. They are sufficient to indicate that the waste of life in stillbirths resulting from syphilitic infection is of serious significance.

For every case of congenital syphilis there is a toll of stillbirths, miscarriages and premature infants representing an important loss to the nation in relation to the increase of birth rate. It must be remembered that in many instances a series of miscarriages and stillbirths have paved the way for the production of a living child, which child begins its infancy in most cases with syphilis.

The following diagrams will serve to illustrate the effect of syphilis on pregnancy in two families. These are not typical instances, but, on the other hand, they are not exceptional.⁴



⁴Dr. Mott, Royal Commission on Venereal Diseases. Final Report, 1916, p. 30.

In order to make more generally available further facts bearing on the relation of syphilis to stillbirths and miscarriages the following tables are introduced.⁵

1. FAMILIES OF 34 SYPHILITIC MOTHERS (*Dr. Mott.*)

Mothers	Pregnancies	Premature births, stillbirths and deaths in early infancy	Children seriously diseased	Children apparently healthy
34	175	104	41	30

2. RECORDS OF 21 FAMILIES WITH SYPHILITIC HISTORIES (*Dr. Kerr Love.*)

Families	Pregnancies	Miscarriages and stillbirths	Deaths in infancy	Children alive but deaf or deaf and blind
21	172	32	45	31

3. RECORDS OF 150 FAMILIES IN EACH OF WHICH ONE OR MORE CHILDREN PRESENTED DEFINITE SIGNS OF INHERITED SYPHILIS (*Mr. Bishop Harman.*)

Families	Pregnancies	Miscarriages and stillbirths	Infant Deaths	Children alive, but diseased	Children alive, and healthy
150	1001	172	229	390	210

4. RECORDS OF 150 POOR FAMILIES IN LONDON—DEFINITELY KNOWN CASES OF SYPHILIS EXCLUDED, BUT NO SPECIAL STEPS TAKEN TO ASCERTAIN PRESENCE OF SYPHILIS.

Families	Pregnancies	Miscarriages and stillbirths	Infant Deaths	Healthy children
150	826	78	94	634
Expressed per 1,000 pregnancies	1000	94	114	792

⁵Ante Natal Hygiene. Routh; British Medical Journal, February 14, 1914, p. 355.

Tables 3 and 4 offer an instructive comparison. Table 3 shows a record of 172 miscarriages and stillbirths in 1,001 pregnancies which occurred in syphilitic families. Table 4 records 78 miscarriages and still births in 826 pregnancies (or 94 in 1,000) which occurred in families that were in all probability non-syphilitic. The greater frequency of stillbirths and miscarriages in syphilitic families is clearly indicated in these tables.

The following statement is introduced to give an idea of the estimated loss of life resulting from stillbirths, miscarriages and premature births. It would be of great interest to know what part of this total loss could be ascribed to syphilis.

5. ESTIMATED ABORTIONS, PREMATURE LABORS AND STILLBIRTHS IN MARRIED AND UNMARRIED WOMEN.

1910	98,680
Loss to population in 1911.....	96,925

There are students of this subject who say that syphilis would account for one-half of this loss. That estimate is probably too large. At the same time the waste from syphilis alone is sufficiently great to make important inroads into the birthrate.

The usual progression in the events of pregnancy in syphilitic families is one or more stillbirths or miscarriages and finally a living child. The child may be premature or carried to term but the product is the same—a syphilitic offspring. If the child is premature its hold on life is so much the slighter.

It is again difficult to obtain accurate statistics regarding the number of infantile deaths from syphilis, and further to discover what percentage of infants with syphilis survive. The figures of different observers show considerable variations particularly regarding those that survive.

The Foundling Hospital at Moscow reports that 70 per cent. of their syphilitic children die in the first 6 months. Fournier states that in private practice 60 per cent. of syphilitic infants die and in hospital practice 85 per cent. Presumably these cases were untreated. Etienne accounts for 95 per cent. of untreated cases and 10 per cent. of treated cases⁶. In 193 cases of congenital syphilis in the Babies Hospital, New

⁶Dr. R. A. Urquhart. Prevention of Infant Mortality. Am. Academy of Medicine Conference 1909.

York, there were 26 deaths from the uncomplicated disease or 13.4 per cent. All these cases received treatment except the few who died before treatment could be given a trial. There were 35 deaths (18.6 per cent.) of infants having complications, such as broncho-pneumonia, acute diarrhea, marasmus and acute nephritis, etc. These cases also received treatment. The total percentage of deaths in cases with and without complications was 32 per cent. It should be noted that all of these patients died in their first admission to the hospital.

Dr. Kerr Love's figures in Table 2, show 45 deaths in 140 pregnancies, and Mr. Bishop Harman's figures (table 3) give 229 deaths in 889 pregnancies. No statement is made as to whether or not these infants received treatment. The figures made from the table reported from the Tarnier Clinic show that in a total of 118 pregnancies 40 (or 34 per cent.) living children were taken home by their mothers. An analysis of the table recording the conceptions which definitely took place after the syphilitic infection shows that only 22 per cent. were taken home alive—20 live infants in 90 pregnancies.

The above figures suffice to show that the percentage of deaths of congenital syphilis in relation to the total number of cases of the disease is high. After all, statistics convey scant information about the seriousness of the disease. They contain no record of the mental suffering of the mother who has to rear a syphilitic child and whose anguish of mind is intensified by the knowledge that she has the disease herself. Statistics do not tell anything of the burden of caring for the syphilitic infant, requiring as it does constant and unremitting treatment for a period of a year or more, and there are no records of the mental state of the mother in facing the prospect of future pregnancies.

A review of the total deaths from congenital syphilis conveys inadequate information of the peril of the disease. In comparison with the deaths from other causes the totals are small. The following reports are introduced here to make the statistical material more readily available.

7. TOTAL DEATHS ENGLAND AND WALES.	1915 ⁷	
	All Ages	Under 1 Yr.
Male	1090	676
Female	795	493
	1885	1169

⁷Annual Report of the Register General, Great Britain, 1915.

U. S. STATISTICS 1915.

	Male	Female
Total	3715	2104
Under 1 year	1118	904
Under 5 years	1228	1021

The fact of importance in the above tables is that of the deaths from syphilis all ages, (England and Wales), 62 per cent. are under 1 year and that 38.6 per cent (U. S. Statistics) are under 5 years. Presumably most of the cases under 5 years are congenital syphilis. These figures emphasize the point that syphilis causes the deaths of infants in greater numbers than of adults, and in practically every instance the infant who dies of syphilis has acquired the disease from its parents. This I believe will hold true for children under 5 years of age. In other words syphilis has significance as an adult disease because of its effect upon offspring. It is for this reason that the disease has been called a "national peril."

The following tables from the Registrar General's Report for 1915 give the proportion of deaths under one year from syphilis to 1,000 births for England and Wales.

CONGENITAL SYPHILIS.

Proportion of deaths to 1000 births England and Wales.^a

1891—1900	1.46
1901—1910	1.25
1911—1915	1.42

Proportion of deaths to 1000 births England and Wales, 1915.

Male	1.63
Female	1.23
Average	1.44

The following table from the Department of Health, New York City, will serve as a comparison with the above:

Proportion of deaths to 1,000 Births, New York City.^b

1891—1900	1.62
1901—1910	1.85
1911—1915	1.94
1916	1.39

The ratio of deaths to 1,000 births is approximately alike in the English and New York City reports—three children die of syphilis in every 2,000 births.

^aAnnual Report of the Registrar General, Great Britain, 1915.

Annual Report of the Dept. of Health of the City of New York, 1911-1913.

^bStatistics for 1913-1916, furnished by Dr. Wm. Guilfooy, Registrar of Records

No reference has thus far been made of the after effects of congenital syphilis in those cases that survive. These infants at different periods in their life may show the deforming effects of the disease in various ways. The disease may assail the bony tissue, causing deformities in the bones of the legs, or it may invade the bones of the nose, resulting in such complete destruction as to obliterate the bridge of the nose. It may invade tissues of the throat resulting in destruction of tissue with resulting hoarseness and modification of the voice. It may work its destructive effects in the tissues of the central nervous system. In the last instance the effects may not be manifest until youth or middle age. The ultimate product of the effect in the central nervous system is imbecility or paralysis, or both combined. The disease may invade the eye, resulting in a total or partial blindness or in such destruction of its tissues as to cause unsightly scarring of the surface of the eye. The disease may manifest itself by partial or total deafness. This result may not appear until puberty or after. It is needless to enumerate the further effects of the disease. It is only necessary to remember that the organism which causes the disease may lodge in any of the tissues of the body and there carry on its destructive effects.

If all infants with congenital syphilis had received appropriate treatment the disastrous results which have just been mentioned would be largely eliminated. It is true also that the mortality of the disease would be greatly diminished. But it must be remembered that the nature of the disease is such that it requires constant and regular treatment over a considerable period (between two and three years at least) to make certain of the elimination of the disease. There is only a small percentage of parents who are willing to give up their time in carrying out such treatment, and it is on account of the prolonged nature of the treatment that the eradication of the disease is difficult.

If the organism of syphilis were only large enough to be seen with the naked eye instead of by the high powers of the microscope, the disease would be regarded with more respect. An individual would avoid with disgust a contagion which resulted in flooding his blood stream with maggots, but in the majority of instances he will without fear, take a chance, of submitting his tissues to an invasion of spirochetes.

A study of the above material in relation to the conditions created by the nations at war will be of profit. Unfortunately it is impossible to state in definite figures the toll of miscarriages and stillbirths for a definite number of syphilitic soldiers. But everyone must admit that a "national peril" exists in the form of a reducing birth rate, if there is a considerable number of soldiers infected with the disease. A carefully organized propagandum is under way in all the nations at war to encourage child-bearing. It is necessary, therefore, to check the spread of syphilis among the soldiers if they are to do their share in renewing the races after the war. The following figures need no elucidation in this matter of race destruction and race renewal.¹⁰ Pautrier estimates that there are 200,000 soldiers infected with syphilis in the French army. If each of these cases accounts for only two stillbirths, the infection will account for 400,000 births.

The following is a table of the number of living births, birth rate per 1,000 population, and infant mortality in Paris from 1910 to and including the first five months of 1917.

Year ¹¹	No. Living Births	Birth rate per	
		1000 Population	Inf. Mortality
1910	55,320	18.1	98
1911	55,521	17.2	117
1912	55,257	17	103
1913	48,746	17.1	99
1914			
1915	30,537	10.5	124.5
1916	27,995	9.7*	102
5 mos. 1917	10,096	8.4*	126.6

* Population of 1911 census.

An examination of the wastage of life in hereditary syphilis and of the falling birth rate in Paris can lead to but one conclusion, that syphilis is a national peril.

¹⁰Dr. G. Thibierge, *La Syphilis et l'Armée*. Quoted from Pautrier. *Annales de Dermatologie*, Sept. 1916.

¹¹Taken from statistics not yet published. Confidential sources.

DISCUSSION

Dr. H. H. Hibbs Jr., Director, School of Social Work and Public Health, Richmond.

Estimates of the prevalence of syphilis in the United States are based on two kinds of statistics; mortality statistics—the number dying from the disease—and morbidity statistics—the number of living who are infected. The best results are to be obtained by the latter method.

I have been making a list of all the investigations of this type of which I can find reports. These can be divided into two kinds, those in which the diagnosis was based on clinical methods only and those based on routine Wassermann tests (given to all subjects included in the inquiry, not simply to those where the presence of the disease was suspected.)

In twelve of the investigations so far examined clinical methods of diagnosis were used. The results showed from 0.3 to 4 per cent. of the subjects examined to be infected. In only one case did it exceed 6 per cent.

In five investigations both clinical methods of diagnosis and Wassermann tests were used independently. The results obtained by the use of the two methods varied markedly—from 6.1 per cent. by the clinical method to 24.7 per cent by the Wassermann test in one inquiry, from 3.6 to 17.4 in another, from 5.7 to 13.4 in another and so on. These figures clearly show that the clinical method of diagnosis, in which the reliance is upon history, symptomology, and scars, does not reveal more than from one-half to one-third of the cases actually existing. For accurate results we must rely on the Wassermann test. The test must also be given in a routine manner to all the subjects in the group examined and not simply to those where the presence of the disease is suspected.

I have been able to find reports of sixteen investigations of this type. Nine were based on routine tests of patients admitted to hospitals and dispensaries. The percentages of syphilis varied from 13 to 30 for general patients. It was less among accident cases where the patients were able-bodied (8 to 15 per cent). These investigations apply for the most part to the working classes. The per cent. among the colored was higher than among the white.

Seven investigations were based on physical examinations of employees, students, army recruits and other representative groups. The per cent. of positive reactions varied from 0.0 to 5 per cent. among students, 8 to 10 per cent. among workmen, 16 to 18 per cent. among recruits to the regular army (before the war) and 20 to 24 per cent. among negro workmen. The following table summarizes these figures:

In undertaking to present certain suggestions with regard to methods for preventing venereal diseases, as a war measure, it should be understood at the outset that this paper is intended to deal with the subject as a social question rather than as a medical one.

The two aspects of the subject should undoubtedly be considered together, but as a layman, it is impossible for me to present but the one phase.

May I also explain that my only qualification for discussing this matter at all is the fact that for a short period I had the honor to be Director of Public Safety of the City of Philadelphia when the Honorable Rudolph Blankenburg was Mayor of that city, and that the position which I then held placed me at the head of the Philadelphia Police Department at a time when there was particularly urgent necessity for immediate action in preventing a threatened and indeed partially accomplished increase of prostitution in Philadelphia on a large scale and following upon a period during which this evil had been kept within bounds as never before in the history of the city. During the period of law enforcement just referred to, I was administration floor leader in the Common Council of Philadelphia, and as such, thoroughly familiar with every step taken to restrain commercialized vice under the Blankenburg administration. Since ceasing to be Director of Public Safety, practically my entire time has been devoted to social work, and in the course of my activities in this direction I have also had occasion to give considerable thought to this problem.

Without doubt, commercialized prostitution is the chief source of venereal disease. The first problem, therefore, which presents itself to any community desirous of preventing the spread of venereal disease is how to eliminate or reduce so far as possible prostitution within its limits.

If anything worth while is to be accomplished in this direction the community must be aroused to the necessity of improvement. The most perfect laws and the most autocratic power on the part of police and other governmental officials in more or less sympathy with such laws will accomplish next to nothing if the general sentiment of the community is not solidly back of it; and when it is considered that wherever prostitution flourishes there is a strong probability that police officials, high and low, are more or less corrupt, the correctness of this statement becomes even more apparent.

There are several steps which can be taken to arouse public opinion:

1st—Practically every community has one or more notorious resorts flagrantly violating the law in this matter. Interested citizens can with little difficulty secure evidence upon which to base an appeal either to the police officials or to the courts demanding the closing of such resorts. Other things being equal, the greater publicity given to such a demand the better. Whenever such action is taken one of two things results, either the demand is successful and the resorts are closed or at the very worst the evil practices complained of are temporarily suspended. In either case definite good has been accomplished.

2nd—In almost every community there is a certain amount of more or less open, flagrant street walking. It is an easy matter for a small group of citizens quietly to investigate this and to gather evidence upon which to base a demand upon the police department for increased vigilance in the enforcement of the law preventing solicitation upon the street. This, too, should be given the utmost publicity and will unquestionably result in the improvement of existing conditions, however, temporarily.

Measures such as those above recommended, however, merely drive prostitution to greater secrecy without materially reducing it in amount. If a community is really in earnest in desiring so far as possible to eliminate prostitution within its borders far more than this must be done.

3rd—Therefore, a committee should be organized, made up of men and women sincere in their desire to clean up the community in which they reside at whatever cost, able and willing to keep to themselves such information as comes to them of a confidential character, and to talk only when told to by their chairman or whoever else is placed in authority for that purpose, among others, including only such persons as are temperamentally fit for this kind of work and not apt, as many perfectly well-meaning people are, to succumb to temptations along this line themselves, and sufficiently representative of the community to make it true that any recommendations made by them would command the respect of the community as a whole.

This committee through its officers or otherwise should immediately get in touch with The American Social Hygiene Association, 105 W. 40th Street, New York City, or some similar organization, state to the proper representative of such an association the purpose for which the committee has been organized, secure its co-operation, and so far as possible, follow the advice given by it as to the committee's future activities.

4th—A survey of the community should be made with a view to acquiring definite knowledge as to just what its moral condition is. The survey, however, as a general rule should not be made by amateurs on or off the committee. Conference with the American Social Hygiene Association will almost certainly result in indication as to where and on what terms one or more expert investigators can be secured, and the survey advocated should be made by, or most assuredly under the direction of such an expert or experts.

5th—When the data desired has been accumulated and the committee has fairly full information as to conditions throughout the entire community, it will be much easier to determine upon the next step which is to be taken. What this step should be will depend in large part on whether the police authorities are in sympathy with the committee's activities. If they are, a fairly detailed report of conditions should be turned over to them with an offer to co-operate in every way possible in securing improvement. If they are not, a more general report should be presented to the police authorities, and at the same time or immediately thereafter given wide publicity, and then after waiting a reasonable time for action upon the part of the authorities, the evidence obtained should be utilized as the basis for court action; pains being taken to take up first the most flagrant cases in which there is the greatest probability of securing convictions.

6th—Even if the authorities are inclined to co-operate to the fullest possible extent, certain suggestions can be made to them advantageously as to methods of procedure. As for example, they should be told that obviously the first thing to do is to clean up all conditons openly and flagrantly immoral and contrary to law. In the second place, the authorities in many other communities have found that where resorts are known to be immoral although evidence sufficient to secure conviction is not yet obtainable, the placing of such resorts in quarantine has frequently been quite effective. In other words, the

detailing of thoroughly trustworthy officers or plain clothes men to stand, one in front and one in the rear of every such place warning everyone who approaches as to its character, care being taken that no one man is detailed more than two or three weeks at the most to the same neighborhood, and that if possible, no officer is detailed for this purpose on the same beat for which he is normally responsible. This suggestion has to be handled with considerable care in order to avoid legal complications. It is possible, nevertheless, to utilize it to great advantage. The authorities should also be encouraged to check up on the work done along this line by their officers and plain clothes men through expert investigators from outside the community. It is rare indeed that men who have been long in the service as policemen or detectives in communities where commercialized vice is at all common can safely be relied upon to do their whole duty in any such campaign as that now under discussion.

Wherever any official fails to report evil conditions in the territory for which he is responsible or in any other way fails to do his duty in this direction, he should be summarily dismissed or punished, and the penalty meted out to him should be given the widest possible publicity. After examples have been made of one or two men in this way a marked increase in efficiency and honesty of service will characterize the entire force. It will be found particularly necessary, especially at first to demonstrate clearly that no amount of political pull will save any violator of the laws which it is sought to enforce and that such a pull is equally powerless to protect an officer or other official who fails to do his duty.

Another phase of this same problem which ought not to be lost sight of has to do with the young girl who is not a professional prostitute, but who is in serious danger of becoming one. Every community has a definite responsibility for protecting such girls. The Young Women's Christian Association, Girls' Aid Societies, and so forth, if not already in existence, should be organized, and in any event should be backed up in their work by the entire community. A Juvenile Court and, where the size of the community warrants it, a special court for sex offenders—often known as the Misdemeanant's Court, are of the greatest value. Every such court should have carefully selected women probation officers and a place of detention where girls can be detained for physical examination, care and treatment. A woman physician

should be in attendance wherever possible. The physical examination, care and treatment of sex offenders should be a matter of course and not at all the result of a special law passed for the purpose. A law of this character is rarely necessary. In this same connection stress should be laid heavily on the necessity of stimulating all general hospitals to provide ample facilities with which to care for patients suffering from venereal diseases. The tendency of such hospitals is to refuse this class of patients. The result both to the patients and to the community cannot but be disastrous.

No community can deal adequately with this problem, by considering it solely from the physical side. It is fundamentally a moral problem and goes to the very root of our civilization. The importance of maintaining the family unit is basic. It cannot be overstressed. The Christian civilization of which we form a part is largely built upon it. Religion, morality, law, society, government itself, are all struck mortal blows by anything which impairs its purity. From the individualistic point of view, no trouble, no expenditure of money and effort is too great to save our young men and our young women from the curse of sexual immorality.

But the individualistic point of view is not the only one. An amazing proof that this is at last being realized is the fact that for the first time in history the civilian population of almost the whole civilized world is being mobilized today to safeguard, morally and physically, the soldiers and sailors now engaged in the world's greatest war. The race must be kept pure. The awful waste of human life and human power due to sexual immorality must be prevented. The moral tone of our manhood and womanhood must be held high. When the national governments not only subscribe to these principles, but act upon them, how dare we remain quiescent?

In conclusion, therefore, let me urge the importance of educating every community as to this subject. Our doctors, our judges, our women, our legislators, whoever the men and the women may be who mould opinion and shape the destinies of the communities in which we live, must be made to see their responsibility in this direction as we see it.

Silence is no longer possible. Sanity, commonsense, an avoidance of sensationalism are, of course, essential, and are not at all inconsistent with frank and open discussion. But the time for discussion and for action has surely come.

VITAL AND SOCIAL STATISTICS

Tuesday, October 16, 1917

DR. WILLIAM H. DAVIS, Washington, D. C., Chairman

DR. W. J. V. DEACON, Topeka

DR. C. ST. CLAIR DRAKE, Springfield, Ill.

MRS. ETTA R. GOODWIN, Washington, D. C.

DR. WM. H. GUILFOY, New York

MISS JULIA C. LATHROP, Washington, D. C.

SUBJECT

METHODS OF SECURING BIRTH REGISTRATION

RECOMMENDATIONS OF THE COMMITTEE

The recommendations of the Committee on Vital and Social Statistics are embodied in the following summary of the proceedings of the session:

The goal is the registration of every birth in the United States.

- 1. Create a popular demand for the registration of births.**
- 2. Enact good state laws, making the physician or midwife responsible for the birth report, obliging the registrar to send a copy of the birth report to the parents, and finally obliging parents, who have not received this copy within a specified time, to report the birth to the registrar.**
- 3. Secure officials who will enforce the laws. Urge such officials to check annually the deaths under 1 against all birth records.**
- 4. Make a united effort to have Congress enact a law which will make compulsory the registration of every birth.**

REGISTRATION OF BIRTHS FROM THE VIEWPOINT OF WAR'S DEMANDS

W. H. GUILFOY, M. D.,
Registrar of Records, Department of Health, New York City

My purpose in reading this paper has, for its end, the creation of a nation-wide movement to obtain a complete, if possible, and if not, an approximately complete registration of births throughout the country. It is supplemental to the efforts that already have been made by the officers and members of the Association for the Prevention of Infant Mortality, by the Federal Bureau of the Census, whose establishment of a birth registration area is to be highly commended, and by the personal efforts of individual registrars in some of the states and municipalities.

In urging a campaign with this end in view it may not be amiss to put on record what I consider the best means of attaining the desired objective. In so doing, I will touch for a moment upon the history of the efforts made in the city of New York, to obtain a registration of all the births occurring within its limits.

Just 50 years ago with the organization of the Board of Health of the City of New York, a law was made by incorporating in the Sanitary Code of the city, a section which provided for the recording within 10 days of all the births occurring within the geographical limits of the city. This section also provided for the imposition of a penalty of \$50 on the physicians and midwives who failed to comply with the intent of the law. The same law stands upon the books today with a very slight modification.

Apparently the efforts made in this direction were half-hearted judging from the results attained. Probably not more than 50 to 60 per cent. of the births occurring in the early years of the health administration were filed in the Bureau of Records. Sporadic attempts were made in later years by taking to task a few individual offenders, with the result of a transient improvement as to the numbers registered.

The membership of the Board of Health at all times showed a predominance of the medical fraternity, and it was considered by the officials, bad form and possibly a violation of the Hippocratic Oath, to prosecute brother practitioners for failure to comply with a law which did not have behind its enforcement, the *sine qua non* of popular and public demand.

As a result of this laissez-faire policy on the part of the administrative officials, there were always more deaths reported than births, in those years, and it was not until the early nineties, that the registration of the latter, topped that of the former. The law providing for the registration of deaths in the City of New York was faithfully observed from the year of the organization of the Board of Health, 1866, and the deaths of infants under 1 year and under 5 years of age were always carefully segregated and tabulated. But a yard stick to measure infant mortality was always lacking—that is the number of children born alive in each year.

In passing may I note a recent occurrence in Salford, England, which is apropos of the dislike which physicians have of reporting births that occur in their practice. The British Medical Journal of June 2, 1917, printed the following item:

“At a recent meeting the practitioners of Salford confirmed the following resolution—‘as notification of births by the practitioner in attendance was a breach of that professional secrecy we are bound to observe, we refuse to notify.’” This shows the prevalence of the old spirit and the maintenance of that conservative attitude towards all innovations which our English brethren maintain. In the City of New York in 1902 and 1903 several delinquents were sued for violation of the statute. One case went to the Appellate Division of the Supreme Court with the result that the law was modified to read “That every physician or midwife must *file* a report of births occurring in his or her practice.” In 1904 came the awakening of the parents to the necessity of having the births of children registered at the time of their occurrence. This was brought about by the making of a rule by the superintendent of the Board of Education of the city whereby all children registering for school attendance in the primary department had to furnish a certificate of birth, said certificate to be issued by the officials of the Department of Health. At this period about 8 out of every 10 children born in the city were registered. The moment that parents were informed that the births of their children were not recorded and that it was necessary to obtain a certificate of birth from the person in attendance at the time thereof and to furnish affidavits of at least two citizens that the birth took place at the time specified before such birth could be given

a delayed registration, at that moment and not until then was the popular demand created for a rigid enforcement of the law. The reaction on the part of the physicians and midwives who had failed to file certificates of birth of those children who had been excluded from attendance at school was instantaneous, because it meant to most of them a possible loss of business. The registration of births immediately improved and in 1910 fully 95 per cent. of the children born in the city were recorded at the Department of Health. Recent tests have shown a 100 per cent. registration in one of the boroughs, 99 per cent. in another and from 96 to 97 per cent. in the remaining three boroughs. For the whole city the percentage was almost 99. Three things are therefore necessary to reach the mark at which we aim; first a law compelling registration, second, an official anxious and willing to enforce the law, and third, the creation of a public demand for its enforcement.

The enforcement of legislation for the registration of births and the creation of a sentiment among all classes for the recording of proper vital statistics would if undertaken at the present time place us in the position of being able during the approaching census year to measure accurately the mortality among infants throughout the country. Not only should our efforts be confined to a complete registration of births but also to the necessity of more accurate statements of the causes of death upon certificates of infants under 1 year of age. Certificates bearing as a cause of death such indefinite statements as *marasmus*, *inanition*, *asthenia*, *convulsions* and *prematurity* should, if not tabooed, at least be queried as to underlying causes. With a complete registration of births many problems now occupying the public mind can be more intelligently discussed, such as illegitimacy, comparative fecundity of various race-stocks, the effect of hazardous occupations of parents upon their generative faculties and the determination of the ages of greatest fecundity.

Apart from the scientific handling of statistics based upon birth registration there have come to the front of late years demands upon the registration officials for certification of births to be used in various commercial and legal transactions.

In the year 1916, over 172,000 searches were made of the records of births, deaths and marriages on file in the Department of Health in the City of New York, almost 100,000 being free searches of birth

records for admission into school, obtainment of employment certificates and for granting of monies to widowed mothers. Almost 20,000 paid searches were made of the records of births for various purposes. The uses to which the transcripts of the certificates of birth were put were many such as to obtain passports to prove kinship in litigation of wills, etc., to obtain a license to marry in those cases in which the city clerk refuses to grant marriage licenses unless age is proved, to establish exact date of birth for use in criminal court, to obtain deposits in savings banks, etc.

Since the date of the declaration of war against Germany the demand for certified copies of certificates of birth increased tenfold. Thousands of young men applied for certified copies of the certificates of their birth in order to make positively sure that they were within or without the draft ages. It was surprising to find the large number of people who did not feel sure as to their correct ages. Some applied for transcripts in order to prove that they were born after June 5, 1896 and others to prove that they were born previous to June 5, 1885. These applicants had no stomach for war. A list of 25 names was prepared of young men who gave wrong dates with the hope that they might be able to obtain certificates that would exempt them from the draft, and each and everyone refused to accept a transcript of their birth which showed that they were between 21 and 31 years of age. These were slackers and their names were forwarded to the Federal officials for action. Later on when the local exemption boards began to consider applications for exemption from service on the ground of dependent wives and children another wave for demand of records of birth, equaling in height the first wave, but lasting longer set in. Local exemption boards insisted upon the production of certified copies of marriage records and birth records in order that applicants might substantiate their sworn statements as to the persons dependent upon them for support. It is evident that accurate birth records must be made not only for educational, scientific and commercial purposes, but also to meet the demands of the government for war purposes. It is easy to conceive that the first census taken in the early Egyptian ages had undoubtedly for its object the ascertainment of the numerical strength of the people in certain districts. It is also easy to conceive the reason why there is kept in continental countries registers of the

population. The thought intrudes then as to the possibility of our own nation finding it necessary for war purposes to create a nation-wide register of the births occurring within its boundaries. I say it is possible and that the only means of preventing the necessity of Federal interference in state matters as to the registration of births is to have state and municipal authorities strictly enforce the laws at present on the books in many states and for those state and municipal authorities who have no laws bearing on the subject to take immediate steps to provide for the passage and enforcement of laws compelling such registration.

It seems to me that the time is ripe for this Association to pass a resolution urging State officials to enforce existing laws, and where such laws are not on the statute books to appeal to the Governors of such states to call the attention of the legislators to the necessity of immediate action.

SOME METHODS OF SECURING BIRTH REGISTRATION

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"History repeats itself." It was the exigencies of war and national defense, the need of man power that was responsible for the first efforts to conserve infant life, and so again it is war that is responsible for the first real awakening, at least in the United States, to the need of proper legal and complete birth registration.

Not since the war of 1812 has the United States been engaged in a war where nativity was of material importance. The war with Mexico was not a test because there were comparatively few Mexicans here. The Civil War was a private national affair; but this war, involving the world, has created a new era.

For two generations the people of every country have been flocking to our shores and not always have they cast off or forgotten the ties of the fatherland, and today when the demand is for All-America, it is important that there should be definite and positive evidence of birthplace, age and parent nativity.

It is needless, at this time, to go deeply into the history of birth registration. Sufficient, possibly, to say that the world has felt the need of some knowledge of the sources from which its population was renewed, for several centuries. Many different purposes, of course, governed the securing of this information; possibly the most notable effort was that made in the early period of the Reformation, when the Protestant churches made it a rule that all births and deaths should be registered in the churches, the purpose being to check illegitimacy.

But it was less than a century ago that this necessity met governmental recognition. In this country many of the states enacted legislation of some kind, requiring the registration of births, during the last quarter of the nineteenth century. Consequently, we may say, that attempted birth registration is less than a half century old in the United States. Most of the early laws on this subject were of little or no value in securing completeness of registration, depending chiefly upon enumeration annually by tax assessors, or voluntary reports by physicians.

Kansas passed a Model Law in 1911, and after five years' effort has arrived at moderate efficiency, registering in 1916 about 89 per cent.

of the births, and it is the purpose of this paper to tell you of some of the methods used to get such results as have been obtained.

Kansas was admitted to the Union in 1861, but it was not until 1885 that the welfare of the people was considered of sufficient importance to justify the enactment of legislation providing for a State Board of Health and defining its duties. This law contained two provisions for the registration of births, and read as follows:

"Sec. 5. The State Board of Health shall supervise the registration of marriages, births and deaths, and also the registration of forms of disease prevalent in the state; and the secretary of said board shall superintend the registration of the vital statistics of the state. They shall prepare the blank forms necessary for obtaining and preserving such records, and forward such of them to the health officers of local boards as may be required by physicians, assessors, local boards, and others whose duty it is to gather information in relation to the vital statistics of the state."

Sec. 10. "It shall be the duty of assessors of personal property in the several townships and wards of cities throughout the state, annually, to collect such information as to marriages, births and deaths as may be required by the State Board of Health, and report the same at the time and in the manner prescribed by the said board to the local board of health."

By authority of these laws the State Board of Health adopted the following regulation:

"BIRTHS AND DEATHS." All births and deaths occurring in the practice of physicians shall be reported to the local board of health where the same occur, within five days after the expiration of the month in which they occur, in the manner indicated in the blank forms prepared by this board from time to time and distributed through the county health officers; provided, that deaths occurring from infectious or contagious diseases shall be reported, as above described, within twenty-four hours after their occurrence; provided also, where deaths occur within the jurisdiction of a municipal board requiring reports within a shorter period of time, such rule shall be binding."

These citations of the law are made, not because they are of real value, but because they are typical of the laws of the period and represent the current practice of that date. Under these laws the writer

made every effort to secure all possible returns in 1910, and using both returns of health officers and assessors succeeded in securing the names (not records or certificates) of about 23,000 births, equivalent to a birth rate of 13.6 per thousand, which was probably between 55 and 60 per cent. of the births that actually occurred. Of the number obtained less than 8,000 were returned by physicians and most of these were returned in the larger cities which, through local ordinances, were endeavoring to secure effective registration. Last year I visited the registration office of a state where the tax assessor system is still in operation, and was assured by the officials that they were obtaining 92 per cent. of all their births. I wonder if they could convince the Bureau of the Census that they were!

Administrative history seems to indicate that it is easier to enforce a law upon a new subject than it is one that radically changes existing practices. It is this latter condition that has met most officers in the effort to enforce model birth registration laws. With the enactment of a model registration law in Kansas in 1911 it was found that it was not only necessary to put into active operation the new law, but to break up the old habits of reporting, and not reporting.

We may say at once, that we believe that no law for birth registration can be successfully enforced without the co-operation of the people themselves. This means an educational campaign to impress upon the people the purpose and necessity for the proper registration of their offspring. It is said that there is a silver lining to every cloud, and as registration officials, we may find a silver lining in the war clouds which are hovering over our country, in the impression that has been made upon the people of the United States of the necessity of definite and positive proof of birth to establish citizenship. Never before have the people themselves been so deeply concerned in matters of birth registration as they are today. Every registration office in the country has been flooded with requests for birth certificates to be used in some way for war purposes—either to prove a man too young or too old for registration, to secure passports for travel in foreign lands, and many other purposes which it is unnecessary to cite at this time, assuming that this audience does not need any argument in favor of birth registration.

Manifestly the physician is the first person to be affected by the law, as he is charged with the responsibility of reporting the births

which he attends, and by far the largest percentage of births are attended by physicians.

Many physicians resent the request for birth registration; some of them hold that it cannot be demanded unless a fee is paid for their work in preparing a certificate. This attitude can usually be overcome by tactful presentation of the subject, particularly at medical society meetings. If a real discussion of the subject can be aroused at such meetings, the sentiment of the better class of the profession will usually overcome the objectors.

The state protects the physician in his practice, and on ethical grounds has a right to expect him to comply with the laws affecting his practice, and on legal grounds to demand the registration of births as a matter of public welfare. Court decisions have held this many times.

It is better to secure the good will of physicians and have them report because they want to report than to have to force them through fear of prosecution, but they should never be permitted to forget that there is a hand of steel within the velvet glove, and prompt and vigorous prosecution should follow continued or wilful neglect. Particularly should a defiant attitude meet prompt action. In a certain small city of the state the reports indicated that births were not being reported satisfactorily and a representative of the department, a public health nurse, was detailed to make an investigation. She found that the principal physician in the town was a man of large practice and large means and that he held the notion that he was so important he did not have to report his births and had stated publicly and privately that he did not intend to report his births and that the state had not better try to make him. This kind of talk had its effect on the other physicians and the registrar was frankly afraid to do anything. The inspector called on the doctor in his office and was roundly abused, insulted and ordered out. Then the doctor paraded the streets telling with much gusto, how he had sent the representative of the State Board of Health about her business.

When the inspector's report reached the office records were promptly made up and the Assistant State Registrar left for the town and inside of forty-eight hours the doctor was under arrest and was heavily fined in addition to a nice bill of costs.

This is, I believe, the only effective treatment for the defiant physician, and I may add that I know of no neglected or delayed reports in that district since that time.

Another class of case was in one of the larger cities where there seemed to be a rather general indifference to making reports, the physicians were slow and undoubtedly many cases were not reported at all. Repeated efforts made by the State Department to arouse and maintain real interest seemed of no avail, so it was decided that a lesson was necessary. Two agents of the department were sent to the city and made a quiet survey, gathering evidence in legal form of such cases as they discovered were not reported. Later the State Registrar went to the city and filed complaint with the county attorney against twenty-three physicians, each complaint covering from one to ten counts.

Such wholesale action made a front-page story for the newspapers and vital statistics, and particularly birth registration, was advertised as never before in that community, and the continued improvement of birth registration attests the effectiveness of the action. Most of these physicians were prominent in their city and had no real intention of violating the law, but had fallen into a habit of indifference to this obligation imposed by statute.

This attitude on the part of physicians was well illustrated at a County Medical Society meeting which was addressed by the State Registrar; in the discussion which followed one of the doctors spoke up, "Well, Doctor, you know we country doctors are pretty busy, working night and day, and we sometimes forget the little things." That gave the State Registrar the opportunity to impress upon the minds of his hearers that reporting births was not a *little* thing, and to explain the legal, medical and social value of a proper and complete birth record; and the decidedly better tone of birth reporting in that county indicates that with better understanding goes better reporting.

While these are examples of unusual cases, there have been many other prosecutions of physicians, and there are always many cases in the hands of the prosecuting attorneys over the state.

The education of physicians along this line has not been neglected. Kansas University has a one-hour course for senior medical students, the State Registrar teaching public health laws and demography, and every effort is made that they shall have a proper understanding of

their duties in reporting. As most of these students eventually practice within the state, the result is sure to be of practical value.

Possibly the most important single element which must be encouraged is the co-operation of local registrars. In most states these are largely laymen whose first concern is for the fee which they receive. This financial objective should be encouraged in every way; but more than that, the local registrar should be educated to a broader vision of the purpose of registration, and an effort made to give him the view point of a patriotic duty which he owes to his state and society. If this co-operation can be secured, the local registrar will make every effort to secure a record of all births which occur in his district.

In some cases, however, the registrar is a business man to whom the work of registration is an insignificant side-issue and the fees considered too small to be an object, and unless this person can be impressed with the reason for, and value of his work results will be nil.

As in the case of physicians, indifference, neglect or inefficiency must meet prompt action on the part of the state. An inspector called upon the registrar in one small town and found he was the cashier of the only bank in town and one of the most prosperous business men of the county. He was always late with his reports and the inspector had been sent there because no report had been received for two months. The inspector found about a dozen death certificates and twice as many birth certificates loose in the registrar's desk. The registrar was too busy to pay any attention to him, and after gathering up the certificates the inspector started to leave and the registrar called to him, "Come around again in a couple of months and I'll have some more for you." The inspector went at once to the county attorney and filed complaint and a warrant was issued for the arrest of the registrar. When he heard of it he went to every politician in the county and got letters to the department telling what a nice fellow and good business man he was, and armed with these, took the train to Topeka and came to the office to tell us "just where to get off." We listened to his story without comment, as he told how it would hurt his business and disgrace his family if he were arrested, that he had no intention of doing wrong, but was so busy and didn't suppose it mattered much about the reports, and much more along the same line.

We then told him that what we could not understand was that a man of his evident intelligence and business acumen could suppose that the great State of Kansas would be trifled with and subordinated to his private affairs, and that our advice to him was to go into court and make the best settlement he could, that we would not dismiss the action.

Finding his pleading of no avail, he took our advice and was fined and paid costs in addition to his time and the expenses of a trip to Topeka.

In those communities having a large foreign population, many births are not attended by physicians. In some localities, the midwife practice runs as high as 40 or 50 per cent., sometimes more, and in but few of the states is midwife practice adequately controlled; and unless special effort is made to secure the co-operation of the local registrars, the churches, and the women of the community, many births will escape registration. Midwife practice is also very common among the negroes.

There is another class of practice which must be recognized, and which is commonly termed the "neighbor" or "grandmother" practice. In many poor communities will be found the old woman, who is not a regular midwife and does not conduct a regular practice, but who occasionally assists in obstetrical cases, usually without regular fee. This practice is exceedingly difficult to control and frequently escapes registration.

There are also many cases where no physician, midwife, or outsider attends, and when the father is approached for a birth certificate he is very likely to tell the local registrar that it is none of his business what happens in his family. Unless exceptional vigilance is used, these cases will not be registered.

Women's clubs and parent-teachers' associations are powerful weapons in the hands of the registration official. No better expenditure of time and money can be made than to address such organizations. These are usually sympathetic and, when properly approached, will constitute themselves into committees of the whole to assist in birth registration throughout their locality.

The churches are a most important factor in this work, and no registration official should neglect any opportunity to secure their influence. There have been several methods used to secure this aid, among them the use of Cradle Rolls and Baptismal Records for check-

ing purposes, furnishing speakers for Brotherhood meetings, and direct appeals to the minister of which the following letter is a sample:

STATE OF KANSAS
DEPARTMENT OF THE
STATE BOARD OF HEALTH
DIVISION OF VITAL STATISTICS

Dear Sir:

The modern church has become one of the most influential factors in the life of the people, and the successful minister of today concerns himself with the physical and social, as well as the spiritual well-being of his parishioners; for this reason we ask your help in our efforts to secure more complete birth registration.

The world-war has demonstrated, as never before, the value of positive and indisputable evidence of citizenship which can only be established by official records of birth promptly made in accordance with the laws.

The registration of our young men for selective conscription has brought to this office hundreds of inquiries for proof of birth, to prove ages at both ends of the registration age group, either to prove a person too young or too old for registration.

Our foreign missionaries and others having business abroad have been delayed and hampered in their work because of the difficulty in securing passports, as, in most cases, they are unable to present positive evidence of citizenship.

The innocent babe brought into the world is so helpless that others must concern themselves with safeguarding its future. The right to a full period of education, the right to vote, to inherit, to travel, to marry, and to exercise the many rights of citizenship may any or all be dependent upon the prompt and legal registration of birth.

The law requires the physician or midwife who attends a birth to report, within ten days, to the local registrar of the district in which the birth occurs.

Over 41,000 births were registered in Kansas in 1916, but between 4,000 and 5,000 births were not registered.

Will you assist the department in its work by urging upon parents, when calling at a home where there has been a recent birth, to see to it that their baby is registered? And also by giving the subject publicity from the pulpit?

Will you ask the Cradle Roll Superintendent of your Sunday School to check the cradle roll against the local registrar's records and see that all babies thereon have been recorded? No small effort would be of greater value to the babies of today—the potential citizens of tomorrow—than to have the Cradle Roll Superintendent assume this checking as a part of the duties of the office, and as a name is added to the cradle roll to check its registration.

For your convenience, we are sending under separate cover a list of the local registrars of the state.

This department is always glad to prepare statistical information on any public health subject that will aid you in your work.

Trusting we may have your cooperation, I am

Yours respectfully,

W. J. V. DEACON, M. D.,

STATE REGISTRAR.

Publicity—In this work, as in all public health work, the press is most important to every registration office; a little reading between the lines will uncover many human-interest stories which the newspapers will be only too glad to use, and every line that is published is of educational value, because the people read and absorb much of this kind of story where a scientific dissertation would fall flat. The girl who lost a fortune, the missionary who could not secure a passport to return to a foreign field, the native-born boy who could not pass the immigration officials, the man who could not marry abroad, and a hundred other illustrations all arouse great interest when written in good style with local color; they create talk over the family table, and another wonders if her baby's birth was registered.

When the funds of the department permit, a field inspection force is very desirable, but must be used with circumspection. The greatest value, in my opinion, of general field work is the stimulation of the local registrars. The field agent should not do the work of the local registrar, but instead show him how to work and how to check for results, iron out any difficulties he may find and assist in the prosecution of delinquents. If the field agent goes around and looks up unreported births and turns them over to the registrar, it is quite probable that the registrar will consider this good practice and wait for him to come again.

With the presentation of these factors which affect birth registration, it must be apparent that in order to secure results we must depend upon the education of the people themselves, as stated before. When the public reaches the point where it demands the registration of its children, the physician, midwife, or other person responsible for the reporting will not dare to neglect this important service.

To summarize then, the most important elements in securing birth registration are: First, the education of the people; second, the cooperation of physicians; Third, the cooperation of local registrars; Fourth, the cooperation of women's clubs and similar organizations; Fifth, the cooperation of the churches; Sixth, publicity; Seventh, active and effective state administration.

One plan hitherto untried might be of interest. The State Department of Health operates a "Health Car," which is sent from town to town engaging in educational propaganda; its work is largely along the line of reducing infant mortality, and it is proposed, in connection

with this work, to arrange for the stimulation of interest on the part of high school students by an appeal to civic pride, pointing out that the infant mortality rate is the barometer of the health efficiency of a community, and get them to undertake a birth registration survey of the city, checking the returns with the records of the local registrar and reporting to the State Department any births found unrecorded. The State officials will then endeavor to secure the certificates and take such other action as the circumstances seem to warrant.

The plan was proposed by Doctor Lydia Allen DeVilbiss, Director of the Division of Child Hygiene, and is under the joint direction of her department and the division of Vital Statistics. We hope that it will be of real value, not only as an educational medium, but as a stimulus to local registrars, and result in better reports.

The Future—I think the time has come when we should ask and honestly and soberly answer the pertinent question “Is it possible, under the most favorable existing laws and most efficient administration, to secure one hundred per cent. birth registration for an entire state? From a wide study of the subject, from personal investigations and the findings of numerous surveys under many different auspices, I am compelled to answer this question in the negative.

I do not wish to take issue with local registrars who think they get a record of every birth which occurs in their district, although most of them would find themselves mistaken; but I do not believe any State official will make such a claim, and if he does, I challenge it. The rural surveys of the Children’s Bureau of the Department of Labor have not failed, in any case that has come to my knowledge, to find many unreported births. I am sure there is no one in this audience who will deny to the baby born in the sodhouse on the limitless prairie the same protection of the laws of birthright that is given the baby of the palace.

Until some form of law is devised that will prove an efficient check, and such a law uniformly adopted, complete registration is impossible. But laws alone will not accomplish much without the people themselves are brought to a realization of the value of human life and seriously undertake its conservation. I believe the solution of this problem lies in adding an additional duty to parenthood, by requiring that parents report the births of children. Such a report would cover the social facts now required of physicians, and the report made by the

physician could then take up many items of medical and professional interest now necessarily omitted.

The question is often asked, "What is a normal birth?" We cannot answer it, but if the birth report by the physician included information as to presentation, the use of instruments, time of labor, anatomical difficulties, prophylaxis, perineal repair, return trips, unusual incidents and such matters, it would, when statistically arranged, prove of educational value in "Saving the Babies."

METHODS OF POPULARIZING BIRTH REGISTRATION

ETTA R. GOODWIN

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In co-operating with women's organizations and other agencies during the past four years in working to improve birth registration in this country the Children's Bureau has had an excellent opportunity of observing some manifestations of a new spirit, introduced of late in the field of vital statistics—the spirit of popular interest. The summing up of the Bureau's experience seems to be an obligation, first, as an acknowledgment due club women for their part in arousing this spirit, and second, as throwing light upon the availability of women's organizations as a vast reserve which may be depended upon for help in the movement for better registration.

BIRTH REGISTRATION AND THE WORK OF THE CHILDREN'S BUREAU

It is not necessary to give a long explanation of the concern of the Children's Bureau itself in the improvement of birth registration. An apprehension of the functions of the Bureau, as outlined in the law creating it, makes it plain that the Bureau could not escape being confronted, at the very outset, with difficulties arising from the birth registration situation. Trouble began with the planning of the first field work of the Bureau, the investigation of infant mortality in a small city. The Bureau could not move in this work with a free hand, could not make a free choice of a city for the investigation, because in comparatively few cities was the registration of births complete enough to give a basis for a study of infant deaths. In later investigations, the Bureau, in some instances, has been obliged to make itself independent of local birth records by having its agents make house-to-house canvasses for births.

ADMINISTRATION OF THE CHILD LABOR LAW

The Children's Bureau is charged with the administration of the Child Labor Law which went into effect in September, 1917. The enforcement of the law may be said to converge on the one point—proof of age. Under the Rules and Regulations made by the Board appointed for carrying out the provisions of the Law, persons authorized to issue age certificates are directed to accept as the first desirable proof of age

"A birth certificate or attested transcript thereof issued by the registrar of vital statistics or other officer charged with the duty of recording births." We know that in the majority of the states in our country this direction can have no force. The persons issuing age certificates are obliged to find, for children over fourteen years of age, some other evidence of age than the birth certificate. Taking a few examples from the experience of agents in the last few weeks, they have been offered as proof of age birth records written in the fly leaf of a favorite book, as "The Life of President McKinley," "The Wreck of the Titanic," "San Francisco's Great Disaster"; a record written in a Bible so large that it was necessary to call a conveyance to carry it to the agent's office; a record pasted on the inside of a large clock. The very effort of the parents to be helpful to the agents may mean added trouble, as when, in preparation for the agent's questions, they have conscientiously copied the record from the old Bible into a new Bible, bought for the occasion, because the old Bible was so worn and dusty.

TESTS OF BIRTH REGISTRATION

At about the time the Children's Bureau was created the General Federation of Women's Clubs began to give special attention to the question of birth registration and it was at the Federation's request that the Bureau issued as its first publication a bulletin on the subject. Soon after this, active co-operation in working for improved registration was undertaken between the Children's Bureau, associated with the Census Bureau, and the General and State Federation of Women's Clubs, the Association of Collegiate Alumnae, and other women's organizations. It has been carried on without interruption ever since. Originally it took the form of a test of birth registration and was suggested by Dr. Cressy L. Wilbur, at that time Chief Statistician for Vital Statistics of the Census Bureau. This has continued to be a favorite method with the clubs. It consists in securing the names of a certain number of babies and learning by consulting the records of the local registrar whether the births have been registered. The names are secured by a house-to-house canvass of an entire city or town, by a house-to-house canvass of a limited district, or by examining baptismal records, cradle rolls, or some other record. In all of the early tests and in many of the later ones club women not only made out these lists, but visited the homes and obtained, by questioning the mothers, certain information which they filled in on copies of the

Standard Certificate of Birth, afterwards comparing all entries with the entries of the registrar's records.

The test brings publicity, it gives an opportunity for collecting information on the completeness of local registration, and it enables club women, and those with whom they come in contact in the investigation, to become familiar with the birth certificate and with the machinery of registration. In very many cases, in carrying out the test, the club women and the local health and registration officers have co-operated so effectively that facts of the greatest service to the authorities have been secured.

State Health Officers and State Registrars have given every encouragement.

More than 38,000 reports of births investigated by club women according to one or another of the methods just described have been received by the Children's Bureau. Nearly all of the States and more than 400 cities are represented in the reports. The showing for the cities varies from 100 per cent. of the births investigated found to be registered—this happened in a few cities—to a showing of 80 per cent. found to be not registered in one eastern city, or a showing even worse in a few cities in which all births were unregistered, because, at the time of the investigation, no legal provision had been made for the registration of births. Taking all reports together, 22 per cent of the births investigated were found to be not registered.

States in Which Women's Organizations Have Cooperated With the Children's Bureau in Making a Test of Birth Registration

State	Number of births investigated	State	Number of births investigated
Alabama	200	Nebraska	853
Arizona	15	New Hampshire	494
Arkansas	120	New Jersey	915
California	1,131	New Mexico	479
Colorado	153	New York	2,129
Connecticut	614	North Dakota	860
Florida	2,036	Ohio	3,754
Illinois	678	Oregon	67
Indiana	719	Rhode Island	156
Iowa	4,204	South Carolina	60
Kansas	64	South Dakota	66
Kentucky	510	Tennessee	401
Louisiana	5,159	Utah	100
Massachusetts	975	Vermont	156
Michigan	192	Virginia	8,000
Minnesota	1,968	Washington	529
Mississippi	87	West Virginia	191
Missouri	209	Wisconsin	208
Montana	51		

Women in Iowa made house-to-house canvasses in 16 cities. In Florida they did this work in 31 places. In New Orleans 500 volunteer workers made a house-to-house canvass of the entire city and checked up 5,159 births, securing as the result of this work a new and better local ordinance for the registration of births. In connection with the Baby Week campaign the health officer in Norfolk, Va., arranged to have 8,000 births checked up by club women, and other volunteers.

In Minnesota certain club women were designated as county chairmen. By correspondence with school teachers in different parts of their counties they secured reports of births which were ultimately checked with the State records. Chairmen from seven counties sent in reports.

Through the investigation made by club women in a city in one of the Middle Western States it was discovered that out of 50 physicians practising obstetrics, 17 were not reporting the births attended.

WORK FOR BIRTH REGISTRATION IN BABY WEEK CAMPAIGNS

The Baby Week campaigns in 1916 and 1917 proved to be notable opportunities for giving publicity to the questions of birth registration. A day in the program was usually designated as "Birth Registration Day." The idea was circulated through many channels. For example, every correspondent writing to the Children's Bureau for advice in organizing a campaign, and there were more than 4,000 in 1916 and nearly as many in 1917, in receiving the Children's Bureau bulletin of suggestions, had their attention called to birth registration and were urged to make it an important issue in the campaign. Through the General Federation of Women's Clubs Magazine the President of the General Federation and the General Chairmen of the departments of civics, home economies, and public health sent out an appeal to all clubs to celebrate Baby Week and made a special plea for birth registration. State Presidents of the Federations in nearly every state sent out letters of advice to clubs throughout their states. A word for birth registration went in each letter. In fact, it is probable that every club woman in every part of every state, at some time during the campaign, had her attention called authoritatively to the question. The Extension Divisions of State Colleges and Universities in doing their part toward working up the campaign, in some instances sending out many thousand letters and outlines, always had a word to say for birth registration.

In Massachusetts the State Registrar made the campaign in 1917 an occasion for urging all local registrars to increased efforts. In Ohio club women announced as the one great object of the campaign the bringing of the state into the Birth Registration Area and adopted as the campaign slogan "Better Registration for Ohio's Baby Population." The State Registrar issued a special edition of the certificate of birth used in the State. On this was printed an appeal to "Help place Ohio in Birth Registration," and an explanation of the importance of birth registration. These were circulated throughout the state in great numbers. In Illinois and Washington campaigns the main emphasis in 1917 was also given to birth registration. The Louisiana State Board of Health during Baby Week asked all club presidents in the state to send lists of babies born in 1916 and 1917 in order that they might be checked with the records of the registrar. The State Registration authorities in Wisconsin reported that after the Baby Week campaign in 1916 inquiries from parents concerning the registration of the births of their children became so numerous that it took the time of one person to take care of the work.

Children's Health Conferences were held in the majority of Baby Week celebrations and were found to be excellent occasions for asking mothers whether the births of their babies were registered and for verifying the statements by the registrar's records. In Mobile, Alabama, the health officer suggested that no baby be entered for competition for a prize unless its birth had been registered. In one city in a Western State, upon investigating the births of all babies attending the welfare station, it was found that only one-fourth were registered.

In the 1916 campaign the health officer in an Idaho town prepared a list of all children born in the district within the last five years of which he had a record and had this displayed where parents could consult it to see whether it contained the names of their children. This idea was adopted in a number of campaigns in 1917.

Newspapers were helpful. The daily paper in Kingman, Kansas, made a special appeal to all mothers to make inquiry of the registrar by telephone. The newspapers in Tacoma, Washington, printed coupons and encouraged parents to cut them out, fill in the information for their babies, and send the coupons to the health department to be checked with the records. The health officer received coupons from

15 nearby towns. The device resulted in many unregistered births being put on the records.

The Baby Week committee in Grand Rapids, Michigan, devoted the entire month of May to birth registration. A reward of twenty-five cents was offered to school children for births discovered to be not registered. This offer may become a permanent thing.

One hundred students of the State Normal School in Cape Girardeau, Mo., made a test of birth registration during Baby Week.

Members of "Little Mothers' Leagues" made a house-to-house canvass in Athens, Ohio, filling in a few simple questions on cards printed especially for use in the test. Camp Fire Girls assisted in the investigation in Wenatchee, Washington.

The investigation was township-wide in Newman township, Illinois, and in Greendale, LaMoure, and Liberty townships in North Dakota. The report from LaMoure says:

"We chose a representative township of our county and sent to three schools a blank form to be filled out from data brought by the children. We are going to start in next Fall when the schools open and send these blanks to all teachers in the county under the signature of the County Superintendent of Schools and try to get full records."

The Baby Week chairman in Langlade county, Wisconsin, sent word to the Bureau that arrangements had been made to have the visiting nurse make an investigation of birth registration in the entire county.

The chairman of the Child Welfare Department of the woman's club in Pocahontas, Iowa, reported that she had undertaken to secure a complete list of births occurring in the town during the coming year. This will be a guarantee that all births in the community will be registered.

The chairman in one Western city reported that the committee went over the records carefully and added the comment that the registrar is glad to have the club women do this as he is very proud of his records.

Through the action of the Civic League in Burlington, N. J., at the time of the Baby Week campaign, announcements of the registration of births are now sent to parents. The expense of printing the cards used was met by the league from its Baby Week fund. The work of sending out the cards will be done by the clerk of the board of health.

In Chicago Junction and in Marion, Ohio, the names checked were supplied by teachers through inquiry of their pupils. In Appleton, Wisconsin, special registration blanks were taken home by school children to be filled in for the baby in the family.

A quaint report was sent by one Baby Week chairman. It reads: "I found that physicians were supposed to register all births but that it was troublesome so they had to quit doing so."

Parades were an especially popular feature of the campaign and banners with birth registration mottoes were popular features of the parades. One which "took" very well in Louisiana read "Louisiana's babies' first plea: Doctor I want a record for me."

A framed copy of the birth certificate displayed at an exhibit or in a shop window has been found to be an excellent method of arousing interest in the birth record.

One woman writing to the Children's Bureau complained that ignorance of the importance of birth registration was not confined to the general public, but characterized the recording office as well. Her words were "Some of the registrars in the county do not know what a birth report is and these have been found in the waste paper baskets."

Of course there is no way to measure the good results produced in many communities, communities perhaps in which, until that time, no emphasis had ever been given to the subject, by the work of club women who, even if they did not make a formal test, carried on a determined campaign, for at least one day, by discussing the question upon every possible occasion with registrars, physicians, and with everyone else with whom they came in contact.

ANNOUNCEMENT TO PARENTS OF THE REGISTRATION OF A BIRTH

One phase of the birth registration question is arousing much interest among thoughtful parents and has been emphasized in the club woman's campaigns. As, in general, the State laws fix, primarily, the responsibility of registering a birth not upon the parents, but upon the physician or midwife, the first concern of the individual parent, when educated to appreciate the importance of the birth record, is to receive assurance that the birth has been registered. The verbal word of the physician or midwife, perhaps expressing the sincere intention to register the birth, cannot be taken as all that is requisite. Parents are beginning to realize that they should be satisfied with nothing less than

assurance having an official character. The conviction is growing that in order to receive this assurance the parents should not be under the necessity of making inquiry of the authorities and, possibly, be obliged to make some payment for a search of the records, but should be promptly notified by the registrar of the fact that the birth has been recorded. As a matter of office routine, as a rounding out of the transaction in a business-like way the sending of the announcement makes for efficiency. As a means of improving registration it has proved its value. A certain pride goes with the possession of an official document. All parents like to receive an impressive document announcing that the authorities have carried out the ceremony of placing the name on the record, thus recognizing officially the existence of the child. If, in communities in which the practice of sending the announcement has been adopted, a physician neglects to record the birth and the parent does not receive the announcement, this parent will be very likely to take up the question with the authorities.

As a comment upon the value of sending the notification to parents a letter from Dr. Frederic V. Beitler, Chief, Bureau of Vital Statistics, State Department of Health, Maryland, may be quoted. He writes "These cards have been of inestimable value in correcting errors by physicians on the original certificate of birth."

The Children's Bureau has corresponded with State and city registrars in order to learn to what extent the practice of sending the announcement to parents has been adopted. Some changes may have occurred since the inquiry was made. The announcement is sent as a State measure by the State Registration authorities in Maryland, Michigan, Montana, New York, Virginia, and Wisconsin. The State Registrars in Idaho, Indiana, Kansas, Louisiana, Utah, Washington, and possibly other States, communicate with parents and send printed matter on the care of the baby but do not send a certificate or card which may be preserved as an evidence of age. In a number of cities the announcement is sent out by the local registrar. The form of the announcement varies from a simple card to an elaborate certificate or a certified copy of the birth certificate. The last form—the certified copy of the birth record—seems to be the ideal form. The Bureau has received information that a certified copy of the birth record is sent to parents in Denver, Col.; Omaha, Neb.; Atlantic City, East Orange, Kearny, Madison, Montclair, Morristown, Perth Amboy, Plainfield,

South Orange, Summit, West Orange, New Jersey, and Beaumont, Texas. Some other cities doubtless send these certificates, but have not reported to the Children's Bureau. Announcement in the shape of cards or certificates (not certified copies) are sent out in Phoenix, Ariz.; Alameda, Berkeley, Oakland, San Diego, Santa Barbara, Calif.; Washington, D. C.; East Chicago, Gary, Hammond, Marion, Muncie, and possibly other places in Indiana; Trenton, N. J.; San Antonio, Texas; Spokane, Wash. In some of the New England states it seems to be customary to communicate with the parent and ask for any necessary correction in the information entered on the certificate. In this case the parent receives the desired assurance that the birth has been registered, but does not receive any official document which may be retained.

THE WAR AND BIRTH REGISTRATION

The military draft has helped to bring the question of birth registration into the limelight. In fact, everything now seems to point to a general kindling of popular interest, without which, under the present system of recording births, complete registration can never be attained.

THE REGISTRATION AREA FOR BIRTHS

WILLIAM H. DAVIS, M. D.

**Chief Statistician, Division of Vital Statistics, Bureau of the Census,
Washington, D. C.**

The registration of every birth in the United States is a goal worthy of our best efforts. Much thought and much labor have already been directed to this end. Although the pathway is beset with many difficulties, great progress has already been made and the outlook for the future is most promising.

You have listened today to able plans for further work. The State Registrar, Dr. W. J. V. Deacon, has told you what he can do, the City Registrar, Dr. Wm. H. Guilfooy, of New York City, has described a brilliant flanking movement, and Mrs. E. R. Goodwin, of the Federal Children's Bureau, has outlined plans for so popularizing birth registration that all will enlist to help along the cause. Along the same line the Bureau of the Census has recently sent broadcast suggestions and press notices, in one of which was told the story of a physician who became so thoroughly converted to the idea that birth registration is desirable that he went back over his books and in June and July reported to his local registrar 450 births, some of which dated back to 1900.

This Spring the Bureau sent a letter to many local registrars and to every organization affiliated with this Association, asking what had been done this year to check the completeness of birth registration in their cities, and what percentage of births were found unregistered. The replies received were most interesting and valuable.

Dr. I. D. White, health officer, of Clinton, Indiana, forwarded a clipping of July 3, 1917, in which were given all the births in Clinton for twelve months, a total of 241 births, the date of birth, parents' names, and baby's name being given in each case. Just above the list was printed a request that any births not included therein be reported, and concluding with the following offer:

"Dr. I. D. White, health officer, states that any boy or girl bringing into the board of health the name of a child born during this period and not on this list will receive fifty cents as compensation."

As a result of this appeal 14 new names were obtained.

The Bureau of the Census is promoting better birth registration, particularly through the birth registration area which was established in 1915, by Director Sam. L. Rogers.

This birth registration area as at first constituted included the New England States, New York, Pennsylvania, Michigan, Minnesota, and the District of Columbia, an area of only about 10 per cent. of the territorial extent of the United States, but an area in which dwell about 31 per cent. of the population of our country.

Maryland was added in 1916 and already in 1917 Virginia, Kentucky, and Indiana have been admitted, while tests are now being made by the special agents of the Census Bureau in Ohio and North Carolina, and Delaware, Utah, and Wisconsin are lined up, each awaiting its turn for the test. All of these states feel that they are registering over 90 per cent. of the births which occur and so have requested admission to the birth registration area. If they are all admitted for this year the annual Birth Statistics report published by the Bureau of the Census for 1917 will contain birth rates for over fifty-one million people or 50 per cent. of our entire population.. The prime object of these tests is to determine whether the states are registering 90 per cent. of their births and so are eligible to the registration area. But I wish to emphasize the fact that these tests do a tremendous amount of good whether or not the states are finally admitted to the registration area.

Just before the test the State Registrar prods his local registrars in an endeavor to have them send in every birth record which they can find so that each district will secure the highest possible rating. Thus every district in the state knows from the start that a test is being made. The special agents of the Bureau of the Census then send letters to all the rural carriers, to large numbers of the postmasters, clergy, and women's clubs to obtain from these sources, all independent of the official registration system of the state, the names of children born during a period of two designated months. These names are then checked against the official reports on file in the State Registrar's office and the per cent. of completeness readily calculated for this sample of the births of the state. In this way great publicity is given to the test all over the state and there is no doubt that it serves as a remarkable stimulus for both birth and death registration. Immediately following the recent test in Kentucky, Dr. A. T. McCormack, Secre-

tary of the State Board of Health, while commenting upon the great benefit of the test to registration in Kentucky, jokingly remarked that he had only one fault to find with the test, namely, that it had so stimulated death registration that the Kentucky death rate had gone up two points.

Important as it is to stimulate birth registration in states seeking admission to the registration area, it is equally important to do everything possible to make such registration complete in the states already included in this area. With this object in view checks have been made this year in the Bureau of the Census for six of these states. The transcripts of deaths under one year of age in 1916, when the corresponding births occurred the same year and in the same states, have been checked against the birth transcripts. Lists of the deaths for which no birth transcripts were found have now been sent to the State Registrars with requests that they check up these names in their files.

Although theoretically the State Registrars should not be able to find any names not found in the transcripts at the Bureau of the Census, still it is easy to see that the State Registrars may be able to unearth additional evidence which will change the figures, because in spite of precautions there may have been errors on the part of local registrars in forwarding returns or transcripts, or there may have been errors in statements upon the death certificates as to the state in which a child was born, or an error in its age, or even in the spelling of its name. Therefore, before reaching any final figures in these tests, it is necessary to await the findings of the State Registrars. However, the preliminary figures are extremely interesting.

DEATHS UNDER 1 YEAR AND CORRESPONDING BIRTHS.

STATE.	Number of decedents under one year of age born in the state in 1916.	Number of birth certificates found for these decedents.	Number of decedents for which no birth certificates were found.	Per cent for which no birth certificates were found.
Connecticut	2,618	2,095	523	20.0
Maine	1,338	1,149	189	14.1
Massachusetts ..	6,655	5,686	969	14.6
New Hampshire ..	803	689	114	14.2
Rhode Island ...	1,198	921	277	23.1
Vermont	546	481	65	11.9

It has been pointed out that a test of this kind is not really an accurate test of the birth registration of a state because the sample of births checked is not a fair sample of the total births, in that the deaths of abandoned infants and illegitimates unduly swell the total deaths used for checking.

The undue influence of these factors in the tests of these six states cannot, however, be great, for if every death certificate on which the birthplace of father was unknown be deducted the percentages of missing births in these preliminary figures will be:

Connecticut	19.0
Maine	13.7
Massachusetts	13.2
New Hampshire	13.4
Rhode Island	22.1
Vermont	10.8

percentages ranging only from .4 to 1.4 lower than those in the table.

But the numbers not found will doubtless be greatly reduced when the State Registrars make their reports. I certainly hope so, for the deficiency in birth registration according to these provisional figures ranges from 11 per cent. in Vermont to 22 per cent. in Rhode Island, figures which if sustained by further tests by our special agents would mean the necessity of dropping these states from the registration area for births. This result, however, is not expected for I believe that many of those now counted as missing will eventually be found. A recent letter from a State Registrar strengthens my belief in this outcome; in a recent test of this kind he found in a total of 777 deaths no birth certificates for 163, which would mean a deficiency of over 20 per cent. He therefore wrote to the local registrars, parents, infant homes, etc., and found that more than half of those births at first thought to be missing were actually on file but with the names spelled differently.

Of the states in the birth registration area Pennsylvania, Minnesota and New York now makes these checks, as do also some of the local registrars, but the practice is not at all general.

Surely such checks should be made periodically by every local registrar and every State Registrar, not only to obtain records of missing births and to estimate the percentage of completeness of birth registration, but especially to discover where the trouble is, for diagnosis must come before treatment.

In closing I cannot refrain from one word of prophecy and cheer. The outlook for better birth registration was never so bright as it is today. The present emergency has awakened the people as never before to the importance of this question.

The possible discovery that some of the states already in the registration area are not now registering 90 per cent. of their births should not be discouraging, for the flaws once pointed out will be quickly corrected and the states at the next test will be well up to standard. Indeed the outlook is excellent for a registration area for births which within two years will include two-thirds of the population of the United States.

But even this hopeful outlook is not satisfying if a still better one is possible. Would it not be glorious if Congress would enact legislation which would make compulsory the registration of every birth? As one prominent registrar expressed it, such legislation would advance the cause of birth registration "twenty years."

PUBLIC SCHOOL EDUCATION FOR THE PREVENTION OF INFANT MORTALITY

Wednesday, October 17, 1917

COMMITTEE

MRS. HENRIETTA W. CALVIN, Chairman

Specialist in Home Economics, Bureau of Education, Washington, D. C.

MRS. ALICE P. NORTON, Acting Chairman

Editorial Secretary for Home Economics of the Food Administration, Washington

MRS. ELLA FLAGG, Los Angeles

DR. CAROLINE HEDGER, Chicago

DR. FREDERIC HOWE, Framingham

MISS CATHERINE MacKAY, Iowa State College, Ames

MISS EMMA PIRIE, San Antonio

TOPICS

Education of college and university women for giving instruction in the care of the health of infants, children and mothers.

Extension courses in public schools for adult women in the care and feeding of children.

RECOMMENDATIONS OF THE COMMITTEE

The recommendations of the Committee were embodied in the following resolution which was adopted by the Association:—

Resolved, that the President of the American Association for Study and Prevention of Infant Mortality be authorized to appoint a committee to formulate courses in prenatal, maternal, child and infant care, which may be used by teachers in

Home economics in colleges, universities and normal schools

Graded schools

Clubs, classes, etc. (Little Mothers' Leagues, Mothers' Clubs, etc.)

Resolved, further, that the committee be empowered to print these outlines for distribution as an emergency measure.

Statement by the Acting Chairman: I am exceedingly sorry that duties connected with the Bureau of Education have prevented Mrs. Calvin from attending this meeting. She asked me to be here in her place—whether because I am the mother of five children and am bringing up my grand-children, or because I taught through each grade of school and college, in home economics, I do not know—or whether it was because I was the last resort! Anyway, I am here; and I am very much interested in this problem of getting at this matter through public school education. I have become convinced that reforms and permanent changes in society must depend ultimately on this long, slow and often discouraging process of education. For a number of years I had the privilege of working with Colonel Parker, who would sometimes speak at faculty meetings on the purpose of education. Once he burst out with "It is nothing less than the salvation of the world." I believe if the public school teacher does not have that ideal she is going to fail to a great extent in accomplishing what she might do. When I have become discouraged in this work of teaching, I have liked to turn to a little book by Professor Palmer, entitled "The Glory of the Imperfect," in which he speaks of Matthew Arnold's comment that this country is uninteresting because it is neither complete nor finished. Professor Palmer does not dispute the fact of its lack of beauty or finish but the conclusion that this means lack of interest. He believes that the great interest of our country lies in this very fact of its imperfection; that the great interest of life all about us lies in the imperfection of society and the power that lies within us all to contribute something toward its perfection.

Extracts were then presented from papers prepared by Miss Alice Ravenhill of the University of Utah, and Miss Mary Mayer, of Reading, Pa. The papers are here printed in full.

THE EDUCATION OF COLLEGE AND UNIVERSITY WOMEN FOR GIVING INSTRUCTION IN THE CARE OF INFANTS, CHILDREN AND MOTHERS

ALICE RAVENHILL, F.R.San.I.,

Professor of Home Economics, State Agricultural College, Logan, Utah

When charged with the responsibility of formulating constructive suggestions on any topic to which public opinion is being generally directed, experience has shown me the value of tracing the history of the movement of which such an invitation is the outcome. As one who has been privileged to watch, and in a small measure to participate in this movement in Great Britain, I have seen the effort pass through a series of phases which closely correspond with those followed by other efforts toward social and sanitary reforms, an experience which consequently encourages the hope that it also will soon be rewarded by similar substantial and enduring results.

Plans to protect infant life were first framed on behalf of the poorest element in our national life and were confined to postnatal care, usually, as experience gradually showed, after severe if not irreparable damage had already been sustained. The closer resultant study of the whole subject of infant feeding led to the perception that maternal well being must be assured if the infant she feeds is to thrive; and that amateur efforts alone accomplish little. Consequently measures were next taken to assist the nursing mother and also to provide opportunities of instruction for philanthropic workers, during the time that a staff of trained health visitors was in process of organization. Again, the result of these developments was a further expansion in the scope of the work, for the necessity was demonstrated of going further back in the protection of infant life; it became apparent, though only to a few, that prenatal care must be antecedent to postnatal care, and that unless intelligent supervision extended throughout childhood to adolescence, so that the good health of future parents was assured, the object in view would not be attained. Thus, municipal milk depots for the assistance of infants preceded free dinners for necessitous mothers and the organization of schools for their instruction, while the unsatisfactory statistics made public by medical inspectors of schools directed attention to the enduring results of unsatisfactory

postnatal conditions persisting throughout pre-school years. Meanwhile a tabulation of diseases incidental to school age, and efforts to trace their origin gave prominence to another unsuspected factor in physical deterioration, namely the postnatal effects of prenatal influences.

Thus a succession of strong links was formed in the chain of child life protection, including the organization of prenatal clinics for expectant mothers and the establishment of infant consultations for their offspring. Perhaps the last link in the chain, in Great Britain, is the widespread organization of nursery schools for all children who need them, between the ages of one and six years, with liberal government subsidies. Thus to the onlooker, the horizon continually broadened as the years of work rolled by; while both student and worker realized that their original field of labor had been far too restricted, and that if the welfare of the nation were to be advanced all parents, (mark you, not all mothers only) must be educated and guided in regard to their personal responsibilities and practical duties.

Indeed as the study of the whole matter became more organized, factors other than poverty and its train of evils were also recognized as threatening national efficiency—factors to which the progress of eugenics and preventive medicine lent great emphasis. Concentration on the particular needs of the child section of the population also gradually opened men's eyes to the perception that in one or another form, ignorance of the elementary requirements of young human life underlies nearly all causes of national anxiety, whether they assume the form of mental or physical defects, of crime, of disease, of dishonesty, or of mere inertia. With considerable hesitation, too, the unpalatable truth had to be accepted that the detrimental results of early mismanagement together with the mental and physical disabilities, due to unwise parentage or to ignorant parenthood, permeated all grades of social life and called for prompt and effective action among those who could not plead poverty as an excuse. Further, the philanthropist and social worker found the day of well-intentioned, untrained zeal was past; enthusiasm without sound knowledge was seen to be worse than futile. The biologist, eugenicist and sociologist spoke with no uncertain voice as to the risks to national stability associated with the prevalent laxity and custom; while from the side of public

health repeated appeals were made for more skilled workers in the field and the support of a more enlightened public opinion.

A few years ago there was real excuse for popular ignorance, but the tabular statements and reports which are now issued from the Children's Bureau of the U. S. Department of Labor, should keep the population of this country well informed upon the agencies, public and private, which exist for or give support to the promotion of infant and maternal welfare. Unfortunately, adequate machinery for the full scope of the work is still lacking, in spite of the fact that many hundred nurses are employed in this country in connection with pre-natal care and infant welfare, either on the staff of municipal health authorities, by the Red Cross Nursing Service, by the National Organization for Public Health Nursing, or by various other voluntary agencies. Admittedly their numbers are inadequate, while the movement is seriously hampered by want of uniform birth registration throughout the nation. The country is wealthy; the population as a whole intelligent. What is lacking that public opinion is not behind this movement as it should and must be if the leakages of valuable human life are to be checked?

It is not amiss to look across the ocean and glean suggestions from a country where conditions have compelled the development of a more complete system directed to the attainment of this end, than has hitherto been possible here. Let me mention, for instance, the organization of training courses for workers in the field of public health. The experience of forty years in Great Britain has shown that a very valuable army of sanitary inspectors, health officers, infant welfare workers and school nurses, can be trained by lecture courses extending over from six to nine months, liberally supplemented by field work and demonstrations, conducted by experts and tested by two central Examining Boards, the Royal Sanitary Institute, which holds its periodical examinations in every part of the British Empire, and the Local Government Board, a department of the British Government. This system is elastic; (preparatory classes being held all over the Empire under certain required conditions); very practical; effective; inexpensive; and maintained by rigid precautions at a high level, so that the certificates granted in each special branch are everywhere recognized and accepted. These courses include elementary physiology, gen-

eral hygiene and sanitation, with special courses and demonstrations planned for each department of the work. Some study of industrial and social organization, with special reference to the conditions necessary to the maintenance of health, is also required; and a substantial part of the examinations is *viva voce*. For superintendents, heads of departments, or inspectors, more advanced and prolonged courses of study are offered by the faculties of social science, economics and public health in all of the universities, and by a few private institutions of high standing. These demand a longer period of study and take up the economic and broadest hygienic aspects of the work at greater length. It has long been customary to require a certificate of attendance at one or other such "organized" course, not alone from paid workers, but from all who voluntarily assume responsibilities in this field of infant welfare work. Neither type of course of study, however, pretends to equip its graduates as teachers or lecturers on infant welfare and maternal needs. Such agents in the formation of an intelligent public opinion must be the product of a complete university or college training, if they are to be capable of instructing all sections of the community in the science and art of rearing a vigorous race. Such experts must be furnished with a scientific foundation for their special work; their equipment must include its historical perspective as well as its sanitary and economic aspects; while individual practical experience of sufficient length must be required.

In view of the large number of highly equipped departments of household economics in the state universities and colleges of this country, it is a matter of surprise that with rare exceptions no specific attention is devoted to this vital matter of preparing instructors in infant, child, and maternal hygiene, even in post-graduate courses. The reports of the Children's Bureau record the publication of a few bulletins and occasional lectures on the subject in many of the admirably organized extension courses connected with state institutions, but I believe it is possible to count on the fingers of two hands, if not on those of one, the detailed courses on the subject actually offered in published university or college catalogues. While courses dealing with the family are quite general, they are also general in their treatment of the various members of the family group. They do not profess to give a detailed presentation of this all-important topic, nor to discuss

at length the requirements of young human life. Miss Marlatt's course entitled "Humanics," at the University of Wisconsin; courses on "Mothercraft" at the Oregon and Utah Agricultural Colleges; good references to the topic in the admirable course in hygiene at the Kansas Agricultural College, and the well known valuable bulletins on Home and Social Economics issued by Stout Institute, Menominee, come to one's mind. Others no doubt there are; but it is safe to say that the idea of training women graduates in the special care of child life, or of preparing them to conduct courses on the subject, is uncommon on this continent. And yet, in view of the unsatisfactory death rate and other causes for anxiety, there is *urgent* need for women competent to cultivate a more intelligent opinion—prepared not only to exemplify their knowledge by personal practice, but to instruct others to teach it, and fit to superintend schools for mothers, infant consultations, nursery schools or other organizations designed to promote national stability. It appears to me that the machinery for this is ready to hand in connection with our Household Economics Departments. It remains only to set it in motion. Attention has for the past twenty years been concentrated chiefly in these departments upon the material needs of human life—food, clothing, shelter—with a natural but rather dangerous tendency to deal with each subject as complete in itself. Consequently there has been a lack of desirable coordination between these three parts of one whole, and they have been curiously isolated from their rightful connection with or applications to the phases of development in the lives of the human beings for whose welfare these courses are primarily existent. Were this tendency judiciously corrected, and were the now defective coordinations strengthened and extended, the results would furnish all the ground work demanded for courses suitable to these new subjects.

There are so many important reasons for advocating the provision of efficient training of college and university graduates for these purposes. Not only is the trained nurse needed, in numbers greater than the supply, to care for cases of actual sickness, but the public needs education in the recognition that the prevention of ill health rests with the laity rather than with the medical profession; and that opportunities must be provided for the thorough study of hygiene and sanitation by its members. The prevalent custom is to consider hygiene as but a branch of

medicine, and to assume that its sanitary applications can be safely entrusted only to the physician or sick nurse: hospital graduation being held a necessary preliminary to training as a sanitary expert. Whereas, the profession of Health Promotion and Protection in its multiple ramifications, calls upon all men and women to be its exponents, and has too long been excluded from the catalogues of institutions for higher education.

It is to me a source of great gratification that I have been permitted to share in the organization of such a course as that to which I refer. Three motives inspired the small group who worked ten years ago at the University of London to gain this end. First, there was the wish to offer a university course which should attract the woman of independent means and prepare her for her weighty responsibilities as a leader in philanthropic work and as the administrator of a large household. Second, there was the earnest desire to secure for Household Economics (that is, the care and conduct of human life in the home) recognition by one of the foremost universities in the Empire, in view of the fact that the high standard it demands of all its graduates renders its degrees of unassailable value. Third, there was the realization that the moment had arrived to equip university women as public health servants in the highest capacities: as inspectors of factories, for instance, as superintendents of welfare work, as heads of university settlements, of public institutions, and for other positions as they arose. Fourth, there was the need to qualify university graduates to train teachers of hygiene and home economics for high school and college work; and so the existing courses in Household and Social Science at Kings College for Women, London, were gradually built up, although even after ten years of testing, the committee do not yet feel that their goal has been entirely attained.

The diploma course covers three years and demands matriculation as a prerequisite. The first year is devoted chiefly to lectures and laboratory work in the sciences fundamental to the subject—physics, inorganic chemistry, biology, the economics of the household, and theoretical and practical work in housewifery, laundry and cookery. The second year's work includes organic and physiological chemistry, biology and physics, general economics and economic history, with a further study of the household arts, and a comprehensive course in

hygiene—municipal, school, domestic personal—with a special section devoted to infant and maternal welfare, in which attention is directed to the phases of human growth and development, from the antenatal to the post-adolescent period. In the third year, applied chemistry and experimental hygiene, bacteriology, nutrition and advanced lectures in hygiene, as well as a study of business methods, are required of all students, to which is added considerable field work, including visits to factories, workshops, laundries, sewage works, etc., together with regular attendance at infant welfare centers. The separate interests of each group of students are further safeguarded by provision for their specific requirements. Those preparing to be teachers of household economics in colleges and high schools, and those who aim to be social and health workers, each follow divergent lines of study and practical work in their last year, specially adapted to their various objects.

It appears to me that no disorganizing readjustments of existing household economics courses are called for to furnish parallel opportunities in the universities and colleges in this country. If a less number of hours were spent on elaborate food work and dress-making, time would permit the inclusion of the now absent but most indispensable course, historical and applied, in hygiene and sanitation. Some modification of the time devoted to chemistry would admit the very requisite course in physics. Slight reorganization of the widely elected courses in sociology and economics would enable more emphasis to be laid upon the ethics of conduct and the responsibilities of the individual to the community, now liable to be overlooked, especially on the side of physical standards and duties. Less time spent on the drawing of house plans and on dabbling in various branches of art work (leather, metal, or basketry), would afford opportunity for the study of maternal needs, of the details of infant care, of the significance and requirements of childhood's phases, and of the essentials to normal adolescent development. The specialization general during the senior year could advisedly be directed, for a few years at least, to the urgent needs of child welfare in its domestic, civic and national bearings.

With the object of thus emphasizing that the right care and conduct of human life at all ages is the core of all household economics courses, I have prepared an outline scheme for the criticism of experts in this country, showing the possible readjustment of existing subject

matter in our universities and colleges, so that it should include a wide scope and more coordination of its parts, without loss of essential details, be thus better adapted to the immediate needs of the nation, and, as I believe, result educationally and practically in immense gain to the students. This scheme will be submitted shortly to the criticism of the heads of the home economics courses in this country.

In most cases where a national need arises, the call for costly machinery to meet it militates against prompt responsive measures being taken—but in this case the machinery exists in a highly efficient form with skilled workers to utilize and control its output. It remains only for those who perceive the need to bring it before those in charge of the means to meet it. I strongly urge that the household economics departments of the universities and colleges of this country be invited to expand their scope and further to differentiate their aims; so that their graduates may be competent not alone as private home-makers, institutional housekeepers, or educational specialists, but also that they may train experts in all that concerns the protection, development and right care of the mothers and children of the nation, within and without the family circle.

EXTENSION COURSES IN PUBLIC SCHOOLS FOR ADULT WOMEN IN THE CARE AND FEEDING OF CHILDREN

MARY H. MAYER

Principal, Girls' High School, Reading, Pennsylvania

It has been said that high school education throughout the country has come in for a more searching criticism than any other field of school work, because of the immense change, during the past twenty-five years in industrial and business life, and I may add, in the life of the home. The founders of the public school system in this country did not realize, nor did they even dream of the work the public schools would be doing today, because they did not realize the possibility of the present disintegration of the American home.

Before I tell you something of what we have tried to do in Reading with courses for adult women, I should like, if you will pardon the personal note, to tell you that my own realization of the need for such courses dates back to at least fifteen years ago when an elderly gentleman, in speaking of the death of his infant grandson said, "it is the exceptional case when a young mother does not lose her first-born child in infancy, simply because she does not know how to take care of it." The remark seemed to me then because of my belief in "instinctive motherhood," not only unjust, but cruel. It startled and shocked me, but it set me to thinking. The man was one whose opinions on all other subjects were respected by the entire community in which he lived; he was a man of affairs as well as a thinking man of ripe experience; and I began to watch whether or not he might be correct.

Soon I saw, what many of you undoubtedly have seen; that, in nine cases out of ten, it is the *grandmother*, not the mother, who "brings up" the first baby in a family, that is, if the grandmother is near enough at hand to advise, to teach, and to help, and that in other cases, perhaps, the old gentleman was right.

Today, this fact is being recognized everywhere. It was recognized by our Federal Government in the creation of the Children's Bureau in Washington and the appointment of Miss Lathrop as its chief. It is recognized by many state departments of education, and by such universities as Columbia and the University of Chicago, where, I am told, Dr. Marie Moyer offers the women students a course in "Motherhood"

which takes rank with Latin, trigonometry and political science in the college curriculum.

In an article in the New York Herald, some time ago, Dr. Josephine Baker, Director of the Bureau of Child Hygiene of the New York City Department of Health, presented startling statistics showing that the percentage of infant mortality in that city was then higher among the children of native born Americans than among those of foreign born residents. In regard to this, Dr. Baker said:

"It is evident that certain factors are at work which tend toward producing a lower death rate among the children of the foreign born than those of native mothers. Undoubtedly the chief factor is the maternal care bestowed, and it might well be said that the education of the foreign mother by the campaign under the direction of the Bureau of Child Hygiene has begun to bear fruit.

"On the other hand the native mothers have been, if not overlooked, at least somewhat neglected. It appears to have been taken for granted that they have not stood so much in need of all that goes to protect their infants from sickness.

"In many ways it seems to me that the poorer children are receiving more expert care. Everything that science has discovered about the care of infants is put into practice for their benefit. At the city milk stations nurses are on hand to give indigent mothers instruction in how to care for the baby.

"But where does the mother who is supposed to belong to the more fortunate classes go for instruction? I know of but one institution that has attempted to fill this need, and that only in a limited way, which does not at all meet the situation.

"In the Department of Health we are just as much interested in helping the well-to-do baby as the poor baby. In a democratic country there is no reason why the wealthy baby should not have just as good a start in life as the poor one.

"One of the features of a little pamphlet which we shall send out to parents is the stress that we lay on keeping the baby well. Taking care of the child so expertly that it does not fall ill, instead of permitting it to fall ill, and then seeking to cure it, has proved the most important phase of the city's policy in caring for children so as to reduce very materially the infant mortality taken throughout the city as a whole."

Surely in the face of all this, it is the duty of the public school system to meet its obligation in this field of work. The duty which the mothers of our land, through supposed lack of time or through ignorance, have neglected to perform, is forced upon the public school system, and we realize that it must be met. With this thought in view, four years ago, we planned and introduced into the Home Economics Department of the Reading High School for Girls a five months' course on "The Care of Infants," which was given in the senior year and which, since its beginning, has been one of the most popular and successful courses in the school curriculum. This course embraces instruction on

the holding of an infant, bathing, feeding, sterilizing and preparation of food, making an infant's bed, the proper selection of its clothes and the actual dressing and undressing of the infant.

It was the success of the class work in our own school that made me, two years ago, greet with enthusiasm the suggestion that we include in the short unit course of the Practical Arts Department not only a "Course for Servant Girls," a "Course for Housekeepers," but also a "Course for Mothers."

To be perfectly frank, the mothers of Reading did not, as a rule, feel the need of instruction. They still believed in "instinctive knowledge," and we soon found that it would be necessary to educate the community to a realization of its own needs.

The mothers who responded most eagerly to the announcement of this course were former pupils of the high school, who believed in what the school offered and who liked the school background.

We found that the less formality we had in enrolling and organizing continuation class members, the better. Eight lessons were offered in this "Course for Mothers:"

- | | |
|--------------------------------|-------------------------------------|
| 1. Care of infant from birth: | 3. Diseases of infants: |
| Bathing | Symptoms |
| Dressing | Causes |
| Clothing | Teething and proper care of |
| Recreation | infants in summer |
| Sleep | Precautions and prevention |
| 2. Feeding of infants: | 4. Home care of sick infants |
| Breastfed | 5. Diseases of children |
| Modified | 6. Diseases of children (concluded) |
| Quantity | 7. Feeding of young children: |
| Cleanliness | Sixth to eighteenth month |
| Care of bottles and nipples | Eighteenth month to third year |
| Feeding of the individual baby | 8. Oral examination and review |

If advisable and time permitted, the course could easily be lengthened and made to include such things as:—

- | | |
|---------------------------------------|------------------|
| The nursery | Toilet articles: |
| Location | Bath blankets |
| Lighting | Towels |
| Furnishings | Kind of soap |
| Direct drafts | |
| Heating | Clothes: |
| Temperature near the floor | Nightgowns |
| Temperature higher up | Slips |
| Day ventilation | Flannels, etc. |
| Night ventilation | |
| Table on which to dress the baby, etc | |

These lessons would be of little practical help to the very poor mothers, but of infinite help to the mother having an average income. The wealthy mother, one would think, needs little help from the school or from the state. She calls up her family physician for advice, several times a day, if necessary, or else employs a trained nurse or an experienced nursery maid for an indefinite period of time.

The expense of running a short course for mothers such as we have offered should not be excessive. We proposed at first to put one of the school nurses in charge of the class, but the Chief Medical Inspector of the School District felt that his nurses were already too busy to undertake this extra work. We then had little difficulty in securing the services of a visiting nurse of experience at the nominal cost of \$1.00 a lesson, or \$8.00 for the entire course.

Surely any Board of Education can meet this expense, and surely no Board of Education could ever "get more for its money." I remember one woman who "brought in" an unwilling daughter and the daughter's baby, and said rather affectionately by way of introduction: "This girl of mine thinks her baby a trouble and even if she did not, she would not know how to take care of it. I have taken her, her husband, and the baby home with me, and I would like her taught how to take care of her own baby, while I go out to work by the day."

I feel too, that we must not overlook the social side of such classes. Women who come after a hard day's work, meet there others who have just as much to do and perhaps more to do than they have. There is a general exchange of sunshine as well as of trials and troubles; many feel there, perhaps for the first time, the true community spirit; there is in this work a general growth and a general uplift that cannot help but be a power for good in any community, and that cannot help but make us realize the responsibility resting upon the public schools of America.

DISCUSSION

Mrs. Norton: I am going to ask Mrs. Max West of the Children's Bureau to tell us some of her experiences on a recent trip in the West.

Mrs. Max West, The Children's Bureau, Washington, D. C.: My excuse for appearing on this program is that I have recently had a somewhat unique opportunity to see and know something of the feeling in regard to the teaching of infant care in a few of the Western State Colleges of Agriculture.

Early in the year the State College of Agriculture at Pullman, Washington, wrote that they wished to add to their Extension work in Home Economics courses on the care of the baby and mother, and asked the Children's Bureau to send a representative to confer with them about such courses, and I was designated to go. I visited the Colleges of Agriculture in four or five of the Western States. The classes were rather small, but there was manifest interest. In addition to the mothers of the towns and villages, the classes included the teachers who were taking courses in Home Economics, and it seemed to me a wonderful opportunity to spread the knowledge of the fundamentals of infant and maternal care to the rural schools in the Western states, and by this means carry such instruction to the mothers in the country. We are not more convinced of anything, in the Children's Bureau, than of the necessity of getting the instruction in child care directly to the individual mother of the individual baby. The problem is how to teach the individual mother in her particular circumstances, whatever those may be. The public health nurse is perhaps our principal avenue of approach, but the teacher's usefulness is hardly yet appreciated.

It seems to me that we are at the very beginning of an enormous educational work, and that our first concern is going to be to get the right kind of teachers: those who have a broad, scientific knowledge of the problems of childhood.

All these Western colleges are ready for this new experiment in education, and after a while this general educational idea is going to permeate even to the confines of the Eastern United States, I am sure. (Laughter.) It seems to me that the great necessity is to direct the manner in which this new teaching shall be done.

Three years ago at the fiftieth anniversary of the founding of Vassar College, Miss Lathrop, Chief of the Children's Bureau, who is one of the trustees of Vassar, gave an address on "The Highest Education for Women." Miss Lathrop believes that child care, with all that that implies, is becoming, or has long ago become, a subject of university importance: that we should have chairs endowed for research into the whole field of child life. Study of the problem of the care of children and child life among all classes of the people, should begin with the universities. We should have a chair of pediatrics in everyone, covering the child in his every connection. These courses should be given in the departments of education, history, sociology, economics, pedagogics, and in anatomy, physiology and hygiene, with many related courses down through the curriculum. By such courses we might hope to develop teachers fitted to go out for this work.

These are the questions I want to throw open to discussion to this audience. No one wants more than the Children's Bureau to know what to do in this situation.

Mrs. Norton: I am going to ask Dr. Ennett, school physician in Richmond, to continue this discussion.

Dr. N. Thomas Ennett, Richmond: The teaching in the public school of infant welfare, and how to prevent infant mortality is certainly a problem, the solution of which is in the formative stage. I do not know just what is to become of it. Our ideas are not very clear yet as to what we want to do or just what we can do. When we deal with infant care and with infant mortality, with children of school age, even with the high school pupils, we are certainly very limited in what we should say, and how we may say it.

Mrs. West emphasized a point I have been much interested in since my association with school work, and that is the belief that if we want to put hygiene in the schools the place to start is in the normal school.

Speaking of contagious diseases, every teacher ought to be taught that contagious diseases are not the mysterious things so many people take them to be. A contagious disease is not something that goeth where it listeth, something that you can catch by passing on the opposite side of the street. Teachers should be taught this. It is well established now that the common contagious diseases are transmitted principally by direct contact and carried in the secretions either from the mouth or nose.

If you give your teacher knowledge as to how these contagious diseases are transmitted, she can work more intelligently in her class room. We do not keep a child out of school who has measles or whooping cough only because we are afraid some other school child will get it—because we know the mortality in children of school age from measles or whooping cough is very low—but we are afraid the child in school will get it and will carry it home to his little brother or sister and in children under three years, the mortality from these diseases is very high.

So I believe we can attack the problem of infant mortality through the schools by educating the teachers as to how contagious diseases are transmitted.

There is another agency in the schools that can help to keep down infant mortality, though only indirectly, and that is the department of physical education. To give you one particular point I have in mind, I think that certain physical exercises that the girls go through have much to do with strengthening the abdominal muscles, and are of the greatest value. A great many cases of delayed labor, which bring on infant mortality, are due to weakness of the abdominal muscles.

Another way in which the school can reach the home so as to prevent infant mortality, is through the night school. In Richmond they have a course known as "Dietetics and Home Nursing," given at night. That course could very well include instruction on the care of the infant, and perhaps prenatal care also. I think the expectant mother should be taught the fact that mother's milk is the best food for the baby and that any mother who can nurse her child and does not, is not a good mother.

In one of our schools we organized last year a Little Mothers' Club in which "mothercraft" was taught, and in which the children were given practical demonstrations on the care of the baby. This is work along the right line. The

need today is not more mothers, but more intelligent mothers. Then infant mortality will drop.

Dr. Roy K. Flannagan, Health Officer, Richmond: Dr. Ennett seems to have covered the ground pretty thoroughly. There is no question but that the public school has a duty to perform in the matter of infant mortality in the good that will come from instruction of the mothers and the fathers of the future. Those of us who have been connected with public health work must appreciate that this public health business is in its infancy, and it is the children of today who are to be our propagandists, and upon them the success of our work must depend. Of course that is a truism. We are sometimes inclined to jump at these problems as though we expected some result tomorrow. But it is going to be ten or fifteen or twenty years before we see what public health really is.

I happen to be on the Merit Badge Faculty of the Boy Scouts of Richmond, the public health section. All these youngsters who want to secure a merit badge—in public health—must come to me for examination. The questions are laid out beforehand. The boys learn the answers, and are supposed to be letter perfect. They know the questions I am going to ask, and they have plenty of time in which to prepare before they come before me, but I have not found one yet who could interpret the answers correctly. They do not understand the hygiene that they have gotten out of the pamphlets they have secured from Dr. Williams. These things require interpretation, and the interpreters are lacking.

It is amazing that grown men and women should know so little about the causes of the simplest diseases. The teachers must know how to teach the children these things before we can expect that ten years from now the mothers will be able to teach their children or to order their homes or to care properly for the children in arms whom they are to raise to citizenship.

I think that is the nub of the whole question—the educational side of it. If the blind lead the blind both will fall in the ditch. I ought to have learned these things twenty odd years ago when I studied medicine. The hygiene I learned in the University of Virginia then was included in six lectures and was worse taught by my professors than it is now by the teachers. But the teaching of hygiene in the normal training schools is not intensive enough and the demonstration has not been practical enough. We have to look for help along the line of health education from the social workers, too, for public health is not a doctor's concern at all, really—I am rather unorthodox, I think, in this. I know the best health officers in the country are doctors, but there is no reason why a good health officer may not lack much of the knowledge that is required of a doctor. Knowledge of surgery or materia medica is not necessary to a public health officer. Take a person of ordinary intelligence, a good teacher, say, and train her in the fundamental principles of health work, and there is no earthly reason why the children she has before her should not grow up in years to come into mothers who can keep their children alive and well instead of burying so many.

The Chairman: Dr. Ennett's remark that we cannot teach the thing we do not know makes some of us wish to exclaim, "If we could only teach even the thing that we do know!" We have much to learn as to passing on our knowledge in such a way that it may be understood by those who listen. I have always said it is easier to teach in technical language than when we begin to interpret into common language, because when we use technical terms the responsibility for their interpretation rests with the hearer; when we use simple terms we assume the responsibility.

Dr. S. McC. Hamill, Philadelphia: I did not expect to say anything this morning, but I cannot resist expressing my appreciation of Dr. Flannagan's remarkable vision. I have gotten much stimulation from his remarks at these various sessions.

Apropos of what has been said in regard to Little Mothers' League Classes, an account of what we have done in developing the Little Mothers' League idea in the public schools of Philadelphia, may be of interest to you.

The work was undertaken by the Child Federation three years ago. We secured a group of forty young women of intelligence and education to whom we delegated the teaching of the groups of children in the public schools, having of course first secured permission from the public schools to conduct the classes.

In conjunction with the Board of Education we selected twenty schools in Philadelphia. The Child Federation trained the young women who were to do the teaching. They were taught in classes conducted by physicians, who endeavored to present to them the subjects they were to teach, in the form in which they believed they should be given to the children. In other words, our lectures to these young women were expressed in the simplest possible language—language the children themselves could understand. The reaction to this procedure was most interesting. I had the distinction of delivering the first of these talks. After finishing it I apologized to the young women for insulting their intelligence in assuming they could not comprehend the subject in the language of their station in life. To my amazement they appealed to me to deliver all the succeeding lectures in exactly the same form.

Another thing of interest was that the Ladies' Committee of the Child Federation got hold of these talks, and, after reading them over, appealed to the Board of Directors of the Federation to have them published. The Board approved their publication. They were later submitted to the Children's Bureau. The Bureau approved of them and asked that they be published. They have never been published, because they require editing and revising before publication. That is one of my uncompleted tasks.

To show the effectiveness of the teaching of this untrained volunteer group of young women, we had a request from all but one of the principals of the twenty schools in which the classes were held urging us to appeal to the Board of Education of Philadelphia to have these classes introduced into the curriculum of the public schools. Such an appeal was made; the Board of Education responded, and today we are having these Little Mothers' League talks—

using the same talks that we gave originally—with demonstrations, presented through the housekeeping centers in the public schools to about 1,200 girls.

Our experience is interesting in conjunction with what Dr. Flannagan has said, because it demonstrates the fact that it is possible for well selected people of intelligence, with very limited training to carry out successfully work which we ordinarily feel is the sole function of the highly trained worker.

I have been tremendously helped by what I have heard today. I want to say, in relation to what Dr. Flannagan said on the first day of our meeting, that I approve of thorough training, but I feel that we are up against an emergency, and a very grave emergency, in these war times. Conservation of the life and health of the children has become an extraordinary factor, and no means that will tend to that end may be neglected. If we are going to accomplish the greatest good at this, the psychological moment, we must add to our trained group every volunteer worker we can secure who is possessed of the essentials of common sense and ability to submit to direction. I am prepared to go further than Dr. Flannagan, for it seems to me we can utilize volunteers, under trained guidance, for certain kinds of work, who are practically without training. We can use them as messengers, as gatherers of information regarding community conditions. Used in this manner they can do no harm, and they will enable us to extend our sphere of usefulness.

Miss Dora Barnes, Nashville: I want to ask here, what to me is a vital question, and I should like to get some very definite help. In Peabody College, in Nashville, I find myself faced with the task of developing public health nursing work. Aside from that, which in itself appears to be a sufficient problem for one woman, I find myself asked by the college authorities to give to the fifteen hundred or more women who come in the first term of the summer quarter, and six hundred more in the second term and a similar number through the rest of the year, such instruction as will make them "know a little something" about nursing, to fit them to go into the homes of the communities where they are, in many cases, the only enlightened representatives, to "do a little something"—to help the people toward better health.

I am in very much of a quandary. My prejudice is all in the direction of urging that a little knowledge here is more dangerous than at any other point, and that rather than try to give the small smattering that is possible to be given in this emergency, the effort should be made to imbue these teachers with such an appreciation of the value of the trained nurse that they shall return to their communities with the conviction that will cause the communities themselves to make a demand for the public health nurse—a demand which could not be met in the South for the lack of nurses!

What am I to do? What am I to try to give to these women, these teachers, who have excellent training in home economics already? I wish someone would give me some help on this point.

The Chairman: It seems to me that a little knowledge is not so dangerous after all, so long as we know that it is a little! An expert chemist once said before an organization of experts that what we needed was to be more thor-

oughly superficial and not so superficially thorough. He said that the chemist, for instance, ought to have some knowledge of botany and of various other things, even though it were superficial. When we teach our people, and give them a little knowledge let us make it clear that it is only a little knowledge that they are getting.

Dr. Flannagan: May I say a word in this connection? I advocated not long ago, before a lot of teachers that they learn something about school inspection. They asked, "Are you going to add something else to what we already have to do? Have we not plenty to do already?" "Yes," I said, "but a little more knowledge of the child will lighten your burden." When a child cannot see the letters on the blackboard, it is evident that something is wrong. If you stick up a Snellen's card and make the child look at it, and find out what the child can see, that does not tell you *what is wrong* with the eyes, but it does add a little piece of knowledge to the teacher about the child's eyes. Almost anybody could tell when a child has big globes in the back of the throat—make the child say "A-ah," and you can see the throat—you see the globes. Well, the child has something wrong with the back of the throat, and you refer it to a doctor. You do not have to know that it has tonsillitis. If a child has bumps on its face, the child is bumpy. If a child is pale it is not necessary to know whether it has anemia or some other remarkably-named disease, but it is sure that something is wrong and you can send it to a doctor. These are elementary things that any intelligent person can notice, and if we can teach our teachers the children can learn too. But it is a question of putting it in simple language, and until that can be done they will not know what you are teaching. I am no teacher, but I know in talking to audiences through the State of Virginia, trying to tell them the principles of public health, I am constantly getting evidences that they really understand what I am talking about, and I believe we can do this, and that the little knowledge, which after all is mainly the knowledge of basic cleanliness, regarding the discharges of nose and throat and mouth and bowels, can be given to the people without difficulty and without danger, and that almost a fool could learn this.

Miss Barnes: These things to which Dr. Flannagan has just referred every Peabody student would be familiar with. But I mean the matter of teaching teachers nursing, so that they can teach a little something about nursing in the homes in their communities; the nursing of sick people, not keeping people well—that is taken for granted. What can I give, as a nurse, to teachers, so that they can go to the homes of the community and teach about the care of the sick?

Dr. H. O. Jones, Health Department, Chicago: Our department occasionally has had requests of similar kind. Recently a missionary school requested the opportunity of sending some of their students to the school of sanitary instruction, in our department, so that when a missionary went into the field he could give some information in these matters. You could refer your students to bodies that are carrying on public health work—you might get some help in that way.

We are making use of the public schools in Chicago to a great extent in combating infant mortality. Our first Little Mothers' Club was instituted in 1910. Since then we have had some 10,000 graduates. The course covers a period of about ten weeks, teaching the fundamentals of general hygiene, bathing, dressing, feeding of the infant, etc. Last year we added some first aid instruction.

In addition to the organization of the Little Mothers' Leagues in the public schools there has been established the Chicago Public Health Association. The central body is made up of leading people in health work, and the president is the Dean of the North Western University Medical College. The central body has the executive direction of the entire organization, and it divided the city into seventeen districts, each under the supervision of a health officer and with an executive organization of its own; the members being people in the locality, whom we try to interest in public health matters. There is one meeting a month, with one paper read—the same paper all over the city. For instance, in July we had a paper dealing with scarlet fever; in August one on smallpox, and in September one on infantile paralysis. In addition to the main paper, the districts have the opportunity of selecting a second paper which they feel would be applicable to their particular problems.

This plan seems to have possibilities for the education of school children and of parents. The nucleus for attendance at the beginning was found in the employes of the department. After the opening of the schools we requested the superintendent to take it up with the principals, and they delegated children of the sixth, seventh and eighth grades to attend the meetings. That stimulated some interest. In September the attendance from many schools ran over a thousand. We use the public school buildings in the evenings, and have stereopticon pictures and lantern slides.

The Chairman: During the discussion on rural nursing at the session of this Association in Milwaukee I thought I detected, on the part of the home economics people, a desire to have the rural workers thoroughly trained in home economics, with a little nursing; while the nurses wanted thoroughly trained nurses, with a little home economics. The two points of view seem a little irreconcilable. The mother has to feed her children even if she does not know all about the food; she has to nurse the sick when she cannot have a trained nurse, or at times when she does not need the trained nurse. Is there not there a solution of Miss Barnes' problem? If the nurse can go into the home and teach the kind of thing the mother has to do, for the mother has to do it without trained help, something will be accomplished so long as she teaches correctly the little she can teach. In some such way we must find a solution of this problem, and we must be content with partial knowledge of different subjects. In the University of Chicago, I found it difficult to get the botany professor to give my home economics students the part of botany they needed. He wanted them to be thoroughly trained in botany. We must make up our minds to give part of our own subjects to specialists in another subject for them to use, even though they may not know the whole of our own specialty.

This closed the discussion.

AMERICAN ASSOCIATION
FOR
STUDY and PREVENTION
OF
INFANT MORTALITY

TRANSACTIONS OF THE EIGHTH ANNUAL
MEETING

RICHMOND, OCTOBER 15-17, 1917

PART III—Proceedings of the Sessions on Rural Com-
munities, Nursing and Social Work and
Propaganda

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RURAL COMMUNITIES

JOINT SESSION WITH COMMITTEE ON NURSING AND SOCIAL WORK

Tuesday, October 16, 1917

COMMITTEE

DR. GRACE L. MEIGS, Chairman

The Children's Bureau, Washington, D. C.

Miss S. H. Cabaniss, Sanatorium, N. C.
Miss Elizabeth J. Davies, Seattle
Miss C. Josephine Durkee, Albany
Miss Harriet Fulmer, Chicago
Miss Helen S. Hartley, Des Moines
Miss Melind Havey, Ann Arbor
Miss Emma Hunt, Frankfort, Ky.
Miss Chloe M. Jackson, Atlanta
Miss R. C. Johannsen, Grosse Point, Mich.
Miss Laura A. Neiswanger, Topeka
Miss Mary C. Nelson, Ann Arbor

Miss Katherine M. Olmsted, Milwaukee
Miss Elizabeth Parker, Lansing
Mrs. J. Baldwin Ranson, Richmond
Miss Mabel Rich, White Rock, N. C.
Miss Genevieve Robb, Litchfield, Conn.
Miss Ada Snowden, Brooklyn
Miss Helena R. Stewart, Columbus
Miss Lena Townshend, Hot Springs, Va.
Mrs. Carolyn M. Wright, White River Junction, Vt.

SUMMARY OF PROCEEDINGS

The papers and discussion dealt in general with two subjects:—

- 1st: The effect of the war on the problems of maternal and infant welfare in rural communities
- 2nd: Reports of methods which have been found successful in carrying on work for infant and maternal welfare in rural communities.

The essayist on the first subject believed that the war would not change, but rather would intensify the old problems of the protection of mothers and babies in rural districts. He proposed, in view of war conditions, that rural public health nursing be carried on by volunteers, undergraduate nurses and social workers who had been given a course of training. As foreseen, this proposal aroused considerable opposition and discussion.

On the second subject members of the Committee on Rural Communities reported successful work, especially along the line of rural nursing, for the protection of mothers and babies.

The unit plan for a rural county suggested by the Children's Bureau* was discussed. This includes:

- 1st: A rural nursing service centering at the County Seat. Several States have passed laws authorizing county boards of supervisors to appropriate money for the employment of nurses.
- 2nd: An accessible center for maternal and infant welfare at the County Seat, with auxiliary centers throughout the county.
- 3rd: A county maternity hospital or beds in a general hospital.
- 4th: Skilled attendance at confinement obtainable by each woman in the county.
- 5th: Provision for household help for women confined in their own homes.

RECOMMENDATIONS OF THE COMMITTEE

The Committee on Rural Communities recommends that a great effort be made to increase the work for infant and maternal welfare in rural communities. As an important part of this work it urges the establishment of rural public health nursing.

* See Maternal Mortality from All Conditions Connected with Childbirth. U. S. Children's Bureau, Publication No. 19, p. 27.

PROGRESS IN RURAL WORK FOR INFANT AND MATERNAL WELFARE
REPORT OF COMMITTEE ON RURAL COMMUNITIES

**By the Chairman, GRACE L. MEIGS, M. D., The Children's Bureau,
Washington, D. C.**

The Committee on Rural Communities decided that it would be well at this session to discuss the subject from two points of view—the general problems and experiments in carrying on infant and maternal welfare work in rural communities, and the effect the war has had on these problems.

The war, under whose shadow we are holding this meeting, has left all the old problems, and has brought us face to face with many new ones in addition. The task of carrying on in rural communities the work for mothers and babies that has proved so successful in the cities, is the most difficult one, I think of those in which this Association is interested.

It is more expensive to provide mothers and babies with proper care in the country than in the city. A great deal of work is, however, being done. The interest is great and increasing, and the work itself is in the most fascinating of all stages, the experimental; those who are engaged in it, the nurses and the physicians, have both the difficulties and the joys of pioneers.

Last year, realizing that but little is known of the conditions under which mothers bear and rear their children in the country, the Children's Bureau began a series of studies of the welfare of mothers and children in rural communities. As the term "rural district" covers different conditions, North, East, South and West, our study was undertaken in different parts of the country and in districts differing widely from each other.

At the meeting of this Association in Milwaukee, last year, we were able to give a brief preliminary report on three studies that had been made up to that time by the Bureau—two in the Middle West and one in a mountain district in the South. We are now carrying on similar studies in the Far West, in regions in which the isolation and privation are so great, that I believe we, here, have no conception of them. In making our report on Maternal Mortality and in the preliminary reports the Bureau tried to outline a few of the essentials which

a program of maternal welfare should include. They are so self-evident that there will be little discussion, I am sure, as to whether they are necessary.

First, rural public health nursing was regarded as a most essential and most economical initial step. Then we thought that efficient and adequate medical care, available to every mother in the county or region covered, was equally necessary. Third, a community or county maternity hospital, or beds for maternity care in the general hospital; fourth, a county health center where mothers could receive instruction or advice in the care of babies (this center, of course, would have to have accessible sub-centers throughout the region covered); fifth, some provision for supplying women with household help at the time when they are incapacitated.

The Association's Committee on Rural Communities is made up largely of public health nurses, who are doing rural work or who have actual knowledge of work done in their districts. In preparation for this meeting, each was asked to send in an informal report on progress that was being made, along the lines indicated above. The reports all tend to show what we already knew, that rural nursing is the line along which the greatest advance is being made. There is no doubt of the fact that the cause of better care for mothers and babies in rural communities is identical with the cause of more and better public health nursing in the country.

In many parts of the country, the county is the logical unit for public health work and nursing. In some of the states legislation has been enacted allowing county authorities to appropriate money to employ nurses; these include: Montana, North Carolina, New Jersey, New York, Ohio, Texas, Virginia, and Wisconsin. Probably in the discussion which we are to have we shall hear of other states by which such action has been taken.

County public health nursing is progressing so rapidly that one of the great problems that has arisen in connection with it is the great shortage of nurses for the rural public health work as well as for cities. It is so great that many of the states have undertaken the task of training their own public health nurses. Dr. Mendenhall told us yesterday how Wisconsin is doing that. Mrs. Ranson will tell us how Virginia is doing it; Montana, I believe, is planning to do it also.

County public health nursing is started in some places as a part

of the tuberculosis work; in others, the first work undertaken is school nursing. In connection with the school nursing I am tempted to repeat a story I have told many times before, of what a county public health nurse, working in rural schools in the South, accomplished in teaching children about health standards. The story was told by a state health officer on his return from visiting a county where a good public health nurse had been at work. She organized in each school in the county a Health League for children. When the health officer arrived at one of the schools, he found that an arrest had been made for an offense against the Sanitary Code, and the whole school had been dismissed so that the children could take part in the trial. The health officer asked what the offense was and was told that its technical name was "sneezing at large." The trial was interesting and instructive. The child who took the part of the prosecuting attorney drew a vivid picture of the great danger to which the whole school had been exposed by the prisoner's lawless act. He showed that the germs of grippe, tonsilitis, cold, tuberculosis, etc., had been scattered many feet abroad; and he pointed out that many children would undoubtedly become ill in consequence and have to stay at home and lose many days' schooling, while others would become temporarily deaf, and lose the benefit of the teacher's words. After this, and after a very feeble defense, the child was condemned to a just but severe punishment. The health officer in relating this incident said: "You know, that child will never sneeze at large again. What is more, he will probably never sneeze again, though he may conceivably explode."

Such work as the establishing of these Health Leagues has been the starting point of public health nursing in some counties; but wherever and however the work starts, it comes finally to include prenatal nursing and infant welfare nursing. Of this point, Miss Helena Stewart wrote in regard to the work in Ohio:

"It very soon became evident in city or county that a public health nurse cannot do good in the prevention of tuberculosis without taking the children into consideration; and in almost every county where we have a nurse supported by county funds she has found her way into the rural schools. Once in the schools the nurse's path leads to the homes of the children and many a rural expectant mother has received through the county nurse her first intimation that she should have care and advice during pregnancy and that she should consult a physician before her labor."

Mrs. McCulley, School Nurse in Loudoun County, Virginia, began her work as county school nurse, visiting every school in the county, inspecting the school buildings, and often visiting the homes to talk over with the mothers the difficulties she found. She writes:

"I never miss an opportunity to instruct both mothers and expectant mothers in their homes, and in any gathering of people where health problems are being discussed. Last August, in our Demonstration Cottage at Bush meeting, we devoted a large space to Baby Welfare Exhibits. We had posters placed about over the grounds, inviting mothers to keep baby's milk in our ice boxes and to bring baby to our rest room to be fed. This brought many mothers. . . . Co-operating with the Home Demonstration Agent we were enabled to accomplish far more than could have been done by either separately. The department planned movable schools for their work last fall, in which they introduced home nursing. . . . At my suggestion they chose for the subject of these lectures 'Infant Welfare and Home Sanitation.' . . . This is all I have been able to do in Loudoun. The territory is so wide and the phases of the work so varied that it seems to me that I have been able to touch each separate one only in the high spots."

The great question of providing rural nursing is that of expense. In many places it is financed, as I believe it was first in Loudoun County, by private subscription. There it was begun by a public health nursing association; I think that now they receive some money from the County. In other communities it has been financed from the beginning by public funds; this, of course, is the ideal way. One of the members of the Committee in Michigan has outlined for us the plan followed in one of the communities in that State. She writes:

"The Mutual Aid and Neighborhood Club of Grosse Point, covering the township of Grosse Point, is affiliated with the Red Cross. The area covered is 10 square miles; the nurse does obstetrical and prenatal nursing and infant welfare work. Babies are brought to the nurse's office to be weighed. The nurse is supported by appropriations from the three villages in the township, and by private subscription. The nurse in charge writes: 'The usual maternity work is done and care given for a week or ten days at a nominal price of 25 cents a visit.'"

In many counties the work has been extended to the county from a small or a larger town. In the present state of public health knowledge that will probably continue to be the course it will take. The work has proved its value in the city and the small town; it has yet

to be proved in the rural district; therefore the nurses and public health officers in small towns have a great duty toward the country surrounding them.

Miss Katherine Olmsted, who, as you know, can tell us so much—or could if she were here and not in Rumania—has written a very interesting account of the way in which the work spread out from a tuberculosis association in a small Middle Western city to the whole county:

"The local anti-tuberculosis association employed a public health nurse and through her work in the schools she became interested in the health conditions of children who came into the schools from country homes. Women in the association were interested in turn and at a meeting devoted to county needs it was decided that the only effective way to reach the rural mothers and to be of help to them was to federate the women of the county so that they could be reached with the necessary propaganda. So the Woman's Club, composed of the same women who were active in the anti-tuberculosis association, all the other clubs, ladies' aid societies and women's organizations in the little city met and formed a Federation of Women—not a federation of women's clubs, but a federation of just women.

"They wanted all the women in the county to belong. Through active publicity in county papers, through many talks and letters, many little county 'ladies' aids' of various churches immediately joined. Others formed so that they might join. It was found that many women who would not belong to the Clubs or "Ladies' Aids" (foreign mothers and hard-working tenants' wives) would, however, upon special invitation of the teacher, go to the school house attended by their children, and many small rural schools organized very active Parent-Teachers' Associations. Each little club or ladies' aid or parent-teacher association was privileged to send delegates to the town meeting held each month and at these town meetings subjects of interest to the entire county were discussed. It was very seldom that any of the delegates from any of the clubs failed to attend the meeting and to carry back to their own groups the entire message of the meeting. It was a most interesting, democratic way of getting together which means success for whatever that group of women want in their county. Within the first eighteen months, largely due to their activities, a tax was levied by referendum vote which will provide at least fifteen thousand dollars for health work. A general county health survey is already being made. Two nurses are employed; an open-air school maintained; a flourishing clinic is kept up and plans for a county tuberculosis sanatorium are being made.

"In other cities, nurses are finding the establishment of Rest Rooms a most effective way of reaching farmers' wives and interesting them in health education. In these cities the Rest Room is not a bare and uninviting place, but a center of interest where the hours of waiting may be spent pleasantly

and with profit. In one small town a series of lectures every Saturday afternoon at 3 o'clock often drew a group of from 50 to 100 women. Some of the lectures were in the form of demonstrations such as 'how to give a bed bath,' 'what to do for croup or convulsions,' and 'how to put on simple bandages and dressings.' In another, a women's exchange was started in connection with the Rest Room and grew to such proportions that it entirely financed the expense of the Rest Room and matron.

"In one thriving little town the room was furnished and a matron supplied by a Chamber of Commerce which found it good business to provide a place for the mothers to come and rest and leave their children under good care while they shopped. The community nurse always had some bit of interesting literature to give to the mothers. One day it was a list of good school lunches and why they were good for a growing child. Another day it was a leaflet about the 'care of the baby,' or 'children's teeth,' 'breathing through the mouth,' 'care of sick children,' 'a new way to prepare some common vegetable,' or 'an efficient and inexpensive way of having running water in the kitchen.' Many new appliances which would make the housework easier were borrowed and carried over to the Rest Room by the nurse, 'just to show my rural mothers when they come in.' Always something new and of interest greeted them when they came—at first shy, diffident, just looking around.

"'Read about this Rest Room in the paper and thought I'd just look in while I was in town with Jim,' is typical of the usual introduction. The newcomer is greeted by a pleasant nurse in a plain blue house dress. Johnny, hiding in his mother's skirts, gives the nurse her opening, for Johnny has on a pair of rompers which lead the nurse to ask how they are made in order that she may pass the information on to another mother who wants it. The result is that Johnny is stripped of his rompers, they are laid on the table, the pattern is cut and Johnny's mother and the nurse are acquainted.

"'It's just having a friend in town that they like and need,' said the nurse.

"'I am school nurse here during the week and am allowed to have rural day on Saturday. I wouldn't miss being at the Rest Room on Saturday for anything and pretty soon our County Supervisors are going to wake up and provide some nursing work for these women in their homes. Oh! the terrible stories they tell about the need for nursing care and help at times of delivery. I often go out when they come for me, but they need some one they can call on all the time.'

"Doubtless with such interest on the part of this school nurse they will soon have their much-needed rural nurse and meantime she is preparing the way and filling a long-needed want in a beautifully simple manner."

This brings up the subject of a county health center. This rest room was the nucleus of a county health center in that county; I hope in the discussion many nurses will be able to tell us how centers are being developed in some such informal way as that. Miss Olmsted says further:

"Many nurses have used their Rest Rooms as clinics, school, dental or infant welfare during the week with a general clinic on Saturday. One nurse said: 'Mothers often bring very ill children or babies in to show me and if they can afford it, I send them to a doctor. If they can't, I get the County doctor to come over and advise us what to do and then I see that the mother fully understands before she goes back.' Another said: 'Many expectant mothers come long ways to talk with me and I am able to persuade many of them to be examined early, others to have a doctor who never thought it necessary before as their husbands had always delivered all the babies in the neighborhood.'

"Still another small town nurse keeps a useful supply of sterile outfits for maternity cases which she sells at cost. These outfits are made by groups of women who have become intensely interested in providing more help for rural women as a direct result of the nurse's presentation of their great need of this help."

As you probably know, this method of having a center like a county center, is the one that has proved so satisfactory in New Zealand. I believe that some plan of that sort is absolutely essential. A county center would be inadequate to the demands upon it, if it were not helped by subsidiary centers throughout the county.

Miss Olmsted told me once of her work in a county in Illinois. She was doing some rural school nursing in addition to her work in a small town. She said that before visiting the rural schools she would send word to the mothers, through the children in the school that on a certain day she would visit the school and examine the children. She found that all the mothers would be there the first thing in the morning and spend the day with her; would help her examine the children; and she would talk over with them the difficulties she found and give advice as to medical advice they should seek. She would also give a short talk on some question such as home care of the sick. She told me that she found the mothers in the country rather suspicious of a course on the care of babies; many mothers in the country believe that they know more about bringing up babies than a nurse, but they are always interested in knowing of methods of taking care of sick people in the country. So these lectures on the home care of the sick she found a very efficient way of getting the mothers' interest. Then before she left, very often she would organize a parent-teachers' association, and would leave in that school district a permanent center for work in that region.

I have been very much interested in the reports from the Committee to see that in practically every case county public health nursing is being developed to include infant welfare and prenatal nursing. But I think every nurse realizes that this work is not complete; one nurse in a county covering an enormous area cannot possibly give adequate care to mothers and babies. We all agree, I am sure, that a better plan would be to have the county broken up into small districts, so that one nurse working in each district can cover it adequately—can provide adequate prenatal care for every mother that seeks it, supervision for all the babies born in the district, tuberculosis supervision, and most important of all, bedside care of the mother at and after confinement.

Many counties are holding this ideal before them: that is, to cover their districts with nurses working in small areas. You all know of the work of the Dutchess County Health Association. Miss Edith M. Ambrose, Superintendent of field work of that Association, has sent us the following report of their work:

"A recent survey of five townships in Dutchess County, made by the State Charities Aid Association, disclosed the fact that preventable sickness was costing the County at a conservative estimate \$412,000 a year in actual money to say nothing of continued invalidism, bereavement and loss of productive power to the community which could not be estimated. A close study was made of 1,600 cases of serious illness and it was estimated that the County was losing 9,000 working days by men and women, and 13,700 school days, and that these two items alone were costing the community \$25,000 a year. It was owing to the facts brought out by this survey that the Dutchess County Health Association was formed. The Association is one of the first of its kind in the country and is supported entirely by voluntary subscription. The survey showed that nursing care, medical attention, clinical and hospital facilities were the most crying needs and the Association therefore planned to give its first attention to filling these gaps. Briefly stated, its aims are remedial and preventive:

"Remedial: 1. Establishing an efficient system of medical, nursing and social service for the care of the sick in their homes. 2. Securing the co-operation of the existing hospitals. Stimulating the provision of additional facilities where and when clearly needed. 3. Maintaining a proper distribution of patients as between home and hospital care, based on a study both of the patient's disease and of his social and economic circumstances.

"Preventive: 1. Educating the individual: (a) as to personal hygiene and the observation of its laws; (b) as to the nature of communicable diseases and the means of avoiding them, as well as the necessity of collective action

to safeguard health and avert danger from these sources, and (c) as to the bad housing and unfit social and industrial conditions in which he lives and the means that can be employed to improve those conditions. 2. Securing the adoption and strict enforcement of public health measures, *i. e.*, public hygiene.

"To put this campaign into operation the Association opened offices in the county town of Poughkeepsie and began its work of stimulating the townships in the County toward the support of the public health nurse.

"It also established a course of training for attendants to supply the rural need for continuous nursing at a price within the reach of every family in the community. This course was established mainly because the survey disclosed an entire lack of pre and postnatal care. One hundred and thirteen cases were studied and of these only one had the continuous care of a trained nurse and only 18 had any nursing service whatever; 35 per cent. of these children came into the world under unfit conditions and surroundings. The death rate in many of the townships was very high. In some parts of the County the entire maternity work is done by midwives. It is through the work of the public health nurses and attendants that the Association hopes to correct all of these conditions.

"The ultimate plan is to consolidate a number of townships making four centers in the County which will afford adequate clinical and hospital facilities. The central office will act as an administrator and receive support from the entire County. Its activities will be mainly educational. It will have on file complete records compiled from the monthly reports of each Center and will be the means of standardizing the methods and work for the whole County.

"Twelve public health nurses are working in the County and a nurse advisory committee composed of representatives from each of these 12 nursing committees meets once a month at the office of the Association for discussion of the work being carried on in the County. Through this Committee we have secured the adoption of a uniform system of record keeping, fees and methods of work.

"The Association has also been instrumental in supplying a tuberculosis nurse to work throughout the entire county and to do the follow-up work for the County Tuberculosis Hospital, and also a nurse for the special care of the victims of the poliomyelitis epidemic of 1915.

"It has further provided a number of illustrated lectures on health matters and has carried on a campaign of education through the local papers.

"The fact that the rural population is so scattered makes the problem a difficult one for the Association, for in addition to raising the salary of the public health nurse a small car must be provided for each nurse and the proposition looks like a very formidable one to a rural community. The experience has been, however, that if enough funds can be raised to assure six months' salary and the purchase of a car, the community at the end of that time, will make every effort to retain the services of the nurse.

"The Association realizes that vastly more can be accomplished by *preventive* than remedial measures and when adequate provision has been made

for the latter the whole emphasis will be placed on the former. The rural public health nurse must herself be a specialist in every line of work for it is obviously impossible in a rural community to provide a special nurse for school work, child welfare, visiting nurse, etc.

"The difficulties which the Association has to face in securing these all-around nurses may well be taken note of by those who are planning courses of study for community nurses and they might do well to include some experience in such a Health Center in their curriculum. Rural conditions as disclosed by our work, so far, show the increasing need of county associations and the Dutchess County Health Association hopes eventually to bring these facts before the public in such a way as to stimulate the formation of other County Associations. The Association is affiliating with all the local and state organizations working along public health lines."

There are many nurses in small communities throughout the United States who are working under the Red Cross Town and Country Nursing Service. Miss Fannie F. Clement, the director of that Service, has prepared a very interesting account of it for us, which will be read later.

So much for the progress of rural nursing, as it is combined with infant welfare and maternal welfare work.

The Committee has but little to report on the second and third points in the Children's Bureau program: the provision of adequate medical care in rural districts at the time of confinement and the establishment of rural maternity hospitals.

When in the Far West last summer, I was immensely interested in discussing this question with the rural physicians. I was rather surprised to hear that in their opinion the most important problem with which they are confronted in their practice is the care of women at confinement. They explained this attitude on the ground that sickness is more rare in country districts and accidents more common; that there are a few cases of appendicitis but beyond all there is the need of care for the confinement cases. One physician to whom I talked was much discouraged; he saw no way out of the difficulty. He said that in the last year he had taken care of many confinement cases, but that he had hardly ever reached the case until three or four hours after delivery after driving perhaps forty to sixty miles by wagon; but that he was forced of course to charge his patients a dollar a mile mileage. You can imagine he was unwilling to present such a bill after giving so little assistance to the mother. Another told me that

in his opinion a woman who stayed in the country in winter when expecting confinement was simply taking a chance on her life. A woman was to be confined in the winter; she intended to go into town for confinement, but made a mistake perhaps in reckoning. She and her husband started in a sleigh for a hospital sixty miles away. Towards evening the mother began having labor pains. They had gone too far to return home, and deciding that it would be best to try to get to the hospital, they drove all night. The next morning at 10 o'clock the baby was born in the snow. The end of the story is a happy one because both the child and mother survived, but that is not always the case. I heard of a case in another state where much the same thing happened, but which did not end so happily. The mother started to the hospital, labor came on before she reached there. When she reached town she was desperately ill, and the baby shortly afterwards died.

I talked with many of the mothers in isolated districts as to the work a nurse could do for them. To reach one valley we had to cross a desert about sixty miles wide, on which there was but one ranch. In this district the first thought of all the women was that the nurse could help them at confinement, could nurse them at that time and provide supervision afterwards. In addition to this they wanted bedside nursing for their sick people and for accident cases.

The reports from members of the Committee on Rural Communities show that the need for better care of mothers and babies in isolated rural districts is great; even greater than in our crowded cities. They show, too, that some beginnings have been made in providing this care. But these beginnings are very small. Nowhere in this country has a plan actually been worked out for giving in a rural community adequate prenatal and confinement care for the mothers, and adequate postnatal care for the babies. Experiments in the development of a plan of this sort, such as have been made in Canada and New Zealand will undoubtedly be made in this country during the coming years.

We will now hear Miss Clement's paper.

WORK OF THE RED CROSS TOWN AND COUNTRY NURSING SERVICE FOR INFANT AND MATERNAL WELFARE

FANNIE F. CLEMENT, R. N.

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It would be quite impracticable to try to give a detailed report of the infant welfare work of nurses in the Town and Country Nursing Service for there are more than "57 varieties" of this activity. Neither can one very easily summarize it.

Among the factors which determine the character and scope of this work are location, density of population, size of the visiting area, occupations of the people and nature of the organization employing the nurse. Again, the work of the nurse in a village or small town must of necessity vary from that of one whose territory includes a township or county.

The majority of the nurses in the Town and Country Nursing Service are what might be termed general community workers. There has been no demand made upon the Red Cross for so-called infant welfare nurses for small towns and rural districts. A number are county or township nurses. Others are employed for school nursing. Several are located in small mining or manufacturing communities. Items from reports of a few of these various types of workers may best illustrate what is being done along the line of infant and maternal welfare.

Any report of rural work must indicate to what extent the nurse has overcome the handicaps incident to rural and small town environment and how she has succeeded in adapting to this environment her knowledge of the principles of prenatal care, baby conferences, Little Mothers' Leagues, and other measures for more adequate care of the mother and infant.

The development of school nursing is easy when compared with that of baby welfare work in a rural district. The schools are there and in most states attendance is compulsory. Thus the group with which the nurse works directly is already organized. Until supervision of the health of babies is made compulsory, it would seem as though the rural nurse would continue to find it difficult to reach all her rural mothers and infants by group meetings or by any other method.

The first infant welfare stations organized by the Town and Country nurses date from the summer of 1916 when several were

opened in various small towns. The development of more centers has been rapid until now meeting places for regular conferences are established in many of the districts.

The first station to be opened was in a New York State community of 8,000, and of it the nurse writes:

"Our station opened the middle of May with 11 babies enrolled and by the end of June there were over 50. During the following year I had about 90 babies registered and that as you know meant a tremendous amount of work. I was not satisfied because we had to have every doctor in town give a little time and that resulted in confusion to the mother. I feel very strongly about the effectiveness of station work. If a good doctor who is also interested can be secured to take charge of the conference, it is splendid, but if the nurse has to run it alone or have a constant change of physicians, I think the best results may be secured by home instruction. However, a nurse having time to get interest aroused by laboring at the situation alone can no doubt establish a successful station, but a busy general visiting nurse may secure the same results in less time by her visiting in each home. I feel my infant welfare work more than paid because it brought the foreign mothers to the Neighborhood House. The practical care of the baby improved among foreigners by the example of the American mothers. One baby who in the fall was given up by the physician to die, took first prize at the baby contest in the spring. Nearly every baby in town was registered at that contest.

"Here in New York State a great drive is being made for infant welfare work and it really is compulsory during the summer months. The prenatal work is the most discouraging for these foreign women have a false modesty which is hard to conquer when care by a physician is recommended. The women think the nurse should work without a doctor. We have succeeded in procuring a trained midwife from the Bellevue Training School for Midwives and she seems very acceptable to the foreign mothers thus far. The patients I persuaded to employ a doctor, however, I usually had to deliver myself as there is not a sufficient number of physicians in this town."

An incident resulting from this situation follows, related in the words of the nurse:

"Christmas night I was invited to dine at a friend's home. There came a call to a confinement case and none of the doctors would go and the midwife was sick so I spent the night in the most wretched part of the town. The baby was born at 6 A. M. I came home in the worst squall I was ever in. The wind knocked me over and one cheek was frozen. I am really glad it happened as it made me mad and brought publicity to the fact that we have not enough medical attention.

"It has now been arranged for me to go to the headquarters of this Industrial Company and tell about conditions here and as my ire is aroused

I will not be afraid to tell of the whole situation which I trust will result in good for the town."

One of the nurses writes:

"My hope has been to establish the mothers' conference, but this is not so simple a matter in the rural community as in the city. Everybody knows everybody else too well. Yet if it can be successfully done it should be."

Another writes:

"For the three years I have been here I have held some sort of a weekly conference with mothers of young babies. Talks have been given at these meetings on infant welfare as well as on general health topics."

Another states:

"It seems as though I have done very little along the line of infant welfare work. Perhaps this is due to the fact that I have no special training in this branch of public health nursing and for that reason have not been able to bring about the proper enthusiasm. I have, however, succeeded in getting better registration of births which even now is most unsatisfactory.

"Last spring I talked before the Mothers' Club and urged that they help organize a baby welfare clinic. I referred them to the work being done in Iowa City by volunteers. The women were most willing to do this work, but felt two other clubs in town should cooperate. This brought about confusion. I talked to the different groups and late in June started the station. A young doctor in town gave his time freely and was a great help. Unfortunately, he has left for army service and the clinic has been closed since. I expect, however, to start it up again in connection with a newly organized 'Day Nursery.'"

One of the nurses who has had years of experience in rural work and whose present territory includes several small districts writes:

"I tried hard this summer to start infant welfare meetings in each borough, but met with no success. Summer time mothers either work in the cottages and summer homes or else they go away for the season."

In a former position this nurse planned a series of mothers' meetings in the various neighborhoods. She sent a copy of the Children's Bureau publication on Prenatal Care to each physician with a note asking them to report their cases to her early and to give her any instructions they might prefer to those set forth in the booklet. Otherwise she would follow it. The plan worked splendidly. Knowing the difficulty in getting mothers together for a conference this nurse selected a part of her district where there were a good many colored families.

"I asked one of the mothers to get her neighbors together on her porch the next day for me," she writes. "When I arrived five women were present on a very orderly porch supplied with chairs. We had an informal talk about babies for one-half hour. Then I asked another mother to let us meet on her

porch the following week leaving it to them to get the neighbors together. This time there were five again and for the coming week we are to meet at another mother's home. They asked questions which seemed to me a hopeful sign of real interest."

A similar plan for porch meetings was carried out among the white mothers, but colored groups showed far more interest in continuing these meetings.

This is one of the few nurses who for years has emphasized prenatal and infant welfare work and who has devoted most of her time to it outside of that allowed for bedside nursing. She cared for a number of women through three pregnancies and many more through two. After she was transferred to another community letters from mothers asking advice continued to follow her. In her three suburban districts totalling less than 7,000 population divided between two nurses, 250 babies were registered during baby week.

"We are to have one and if necessary two more nurses for two months," she writes, "for the follow-up work for these babies."

Speaking further of porch meetings yet in a community where station work has been organized the nurse says:

"My best work has been done when I sat down on some porch in a district and had the mothers and babies gathered around. That always seemed more like their conferences and many a mother accepted information under those circumstances when she would not elsewhere.

"I find our infant deaths occur largely during the winter months. This year from January to September we had 25 deaths and only 4 of these occurred in July and August. On account of an epidemic of whooping cough we were not able to get the babies together. Then, too, the infantile paralysis scare has had a lasting effect which taught mothers to keep children separated."

"Baby Week" in some form was celebrated in practically every community where a Red Cross nurse was stationed. Speaking of her follow-up work one of the nurses writes:

"As a result of a baby contest during 'Baby Week' which aroused an interest in infant welfare not known before in this town, I received the names of babies for my summer visits. I kept 85 babies on file last summer and tried to visit each about once a month. I also held mothers' classes where prenatal and baby care was taught but somehow these classes were poorly attended. From them, however, the mothers learned to consult the nurse and very many telephoned to ask advice. This summer I have 118 babies enrolled and they have been visited as nearly once a month as possible. I learn of them through the school children, the mothers, or while visiting in the homes for nursing or other reasons.

"I tried to enroll them through the birth registration records but found there were none kept in this town, all being sent to Trenton and no record kept here. I have the promise now, however, of a record of registered births to be kept at the city clerk's office."

And this illustrates the infant welfare work of one lone community nurse in a town of 14,000 where during 1916 she made 892 nursing visits, 1,069 instructive visits, 773 social service visits and 510 business calls, making a total of 3,244 visits. Of these there were 497 visits to Metropolitan Life Insurance cases, 147 tuberculosis visits, 1,005 school visits, 394 infant welfare visits and 80 prenatal visits.

Since the infant welfare work of several of the Red Cross nurses covering a few small villages and also a township are to be presented in detail by the nurses themselves at this meeting, reference to this aspect of the work will be omitted in this paper.

In a Southern mill village, where the question of expense of employing a physician has been considered, the head of the mill has arranged a plan which the nurse says

"has been a great help and comfort to the expectant mother. So many times they worry about the expenses of confinement and many times choose the cheapest doctor on that account. Now if the main support of the family has been in the mill a certain length of time, the doctor's bill is paid and \$10.00 given to the baby. The \$10.00 we encourage them to put in the bank or if the expenses have been unusually large, they may use it for that. We of course insist that they have a good doctor then."

This same management had a dozen open air beds made at the mills which the nurse has loaned during the summer where needed. She found them in most instances much appreciated by the mothers and a great joy was afforded the nurse seeing the babies on the porches all summer.

In an industrial community the nurses generally find the shifting population a determining factor in any constructive work.

"In May," writes one, "during our baby campaign there were 40 babies under 2 years of age in this village. By September, 14 of these had left town and of course many new ones have come in."

One of the county nurses in North Dakota has been teaching infant welfare classes in the high school through the county.

"I am doing a little prenatal work here during home visits to the school children," she writes, "I frequently have opportunity to meet some of the pregnant mothers during our mother's meetings. I hope soon to establish a

Saturday morning clinic at the Court House for prenatal and infant welfare work."

In a small county in northern Michigan although the nurse is a county school nurse her territory is not so large as to make it impossible to include some infant welfare work with the school nursing, the entire population of the county being not over 6,000.

"Although organized clinics and mothers' conferences have seemed impracticable while making visits to the homes of school children," she says, "I have been able to locate practically all the babies in the county. A number of lumber camps are located in this district each consisting of 8 or 10 families. The mothers in these camps have no visit from a doctor after the baby is born and practically no one to go to for advice. Cows' milk is not to be secured. The men change camp so frequently that they seldom attempt to make a garden. Happily most of the women can nurse their babies for a limited time. After that in most of the logging camps there is only oatmeal and condensed milk for the children after their first year."

The nurse cites a typical case among the babies in these lumber camps:

"I found a baby 14 months old with symptoms of rickets. It had no teeth. The mother was feeding the baby simply oatmeal and condensed milk. I found it was possible to get fresh meat about once a week, dried fruits, and that there was a small garden of carrots and beets in the camp. The mother was instructed in the preparation of these foods for the baby. The garden patch was covered every cool evening against the frosts as frosts have been prevalent in this section every month this year. Two and one-half months later when I visited the baby it was walking, its color was very much improved and it had 8 teeth."

In a small New Jersey town built up largely through mining interests, a Red Cross nurse is employed jointly by the Board of Health and the School Board as school nurse and sanitary inspector.

"During the past year," she writes, "I tried out an idea that has been utilized to some extent in a few cities. I was not at all sure that it could be worked in a rural district. My wish was to make classes in baby lore a permanent part of the school curriculum and that this branch should be taught to the girls year after year until not one escaped the knowledge of caring for a baby and the responsibility that a woman must feel toward all babies, her own and her neighbors'.

"Our class here consisted of the girls in the vocational school from 15 to 18 years of age. The domestic science teacher helped greatly by interesting the girls in the 'Seventh Baby.' There was a little difficulty at first as some of the girls were not quite certain as to the propriety of talking about babies' cords for instance. Their objection was that their mothers would be shocked. However, by sending a cordial verbal invitation home to their mothers to

attend any class and a little strong sensible talk on the proper kind of modesty, the rebellion was quelled. This was what I feared most, overcoming small-town prejudice, so as soon as it was out of the way things progressed rapidly.

"The baby work followed a course in home nursing which prepared their minds in a general way. We had a celluloid baby-size doll, clothes made by the girls under the sewing teachers' direction, bath tub, and all the other necessary things for a fairly complete, practical course in baby care.

"The result was better than I expected. Soon the girls were taking notes and asking interested questions. The appeal of a baby to all womankind being irresistible, if it is only a celluloid one at first, it seems to me that we should make capital of that fact for our future real babies.

"This year the younger girls are begging for a class and are looking forward to the time when they are old enough to take it and I know that they are sincere, which makes me hopeful for the future mothers of this little town."

In a Western community of about 3,000 where but the one nurse is employed, she found the Little Mothers' League most helpful. Speaking of her infant welfare work, she says:

"The most prominent druggist told me a few months after the League was organized, with tears in his voice, that he had several gross of old-fashioned nursing bottles on hand with the tubes, and lately couldn't sell one. Whenever he tried to 'work one off,' as he phrased it, they told him the nurse teaches the girls that they are not the right kind.

"I found my prenatal visits and subsequent nursing care during confinement made the whole family my staunch friend. I always made a special effort to see the babies once a week. This was an easy way of keeping an eye on the mothers' care of it and yet not offensive to the mother. If anything was wrong, she was glad enough to tell me.

"Two of the doctors in this town always had me go in to see their maternity patients even when there was a practical nurse on the case, just to see that all was well. These women were always glad to learn from a trained nurse.

"I have seven prenatal cases on my list. All of these had asked someone, the doctor, a neighbor, or insurance agent to have me call."

One of the nurses in a Southern mountain community of 3,000 miners and their families writes:

"I have taken care of all the obstetrical cases occurring since coming here except 8, 6 of these happening while I was away and all these mothers sent for me as soon as I returned. We have only lost 3 out of 54 births and four of the second summer babies, none of whose parents had lived here for any length of time."

What the nurses already have been able to accomplish to some extent is an index to future progress in work for mothers and infants.

We have yet to see the development of a model nursing home which fulfills the needs for infant and maternal welfare of an entire community although each year brings this goal nearer.

With the stricter observance of the laws of health and sanitation in this country which has followed from a knowledge of European war experiences even though the shortage of physicians is already felt in rural districts, the increased cost of milk and other foods, as well as many other unfavorable conditions affecting the work for mothers and infants, there will undoubtedly follow redoubled effort on the part of rural nurses and our whole American people in safeguarding the lives of mothers and infants in conserving the strength of the nation.

DISCUSSION

The Chairman: I hope that we will have a full discussion on public health nursing in rural districts, and how it can be made to include work for infant and maternal welfare. We want to hear also about the provisions that are being made for hospital or medical care for women in rural communities. In that connection, we will be glad to have the nurses from Canada tell us something about the work the Victorian Order of Nurses are doing through their cottage hospitals in Western Canada.

In the absence of Miss Crandall, who was to have opened the discussion, I am asking Mrs. Ranson to do it for us by telling us about public health nursing in Virginia.

Mrs. Jane B. Ranson, Supervisor, Public Health Nursing, State Board of Health, Richmond, Va.: I am sorry that Miss Crandall is not here, for I wish we could have an open discussion in this meeting as to the best form of public health nursing to be undertaken under varying conditions.

When I saw Miss Crandall in Philadelphia last spring, she told me that she thought we were making a mistake in Virginia in the approach we were making to public health nursing, or in the emphasis we were placing on rural school nursing, and she begged me to consider the matter carefully, and see whether or not I did not think it would be wiser to work from another angle.

I thanked Miss Crandall for her interest, and have been thinking very carefully about the matter, and the more I think the more satisfied I am that with the conditions we have in Virginia we are following the best plan for Virginia, and for that reason I repeat that I am sorry Miss Crandall is not here, for I would like to have the question freely discussed, so that we might have the benefit of everyone's opinion.

When I went to work with the Virginia State Board of Health fifteen months ago, I tried first to find out existing conditions in the public health

nursing world. I went also to see all the public health nurses then at work in the State, tried to find out economic conditions, and talked over with them what seemed to be the best methods of work.

Virginia is strictly speaking a rural state. Those of you who come from north of Baltimore hardly realize what is meant by "a rural population," as used here in Virginia. You speak of a community of perhaps three or four thousand people as a "rural population," and a town of that sort here in Virginia is almost a city. What we have to deal with are isolated families. We have six counties with one nurse each: Wise County with an area of 420 square miles, and 30,000 people; Augusta, 1,006 square miles, 48,000, etc.

Here in Virginia—I am a Virginian myself, and I think I can say this with loyalty to my State—we have an individualistic people, and not until recently have we begun to grasp the broad necessities of community living, and it is very difficult in going into our isolated communities to get people aroused to the necessity of raising money for community purposes. Then again, there is not a great deal of wealth here, so that a very large area has to be covered in order to raise money enough to support one nurse. So, in determining our policy we have taken into consideration the way our people live, our economic condition, and our outlook on life.

With all of these things in view, it seemed best to work for school nurses to educate the people. It is much easier to raise money for school nurses, and besides what could one nurse do in an area of 1,006 square miles, having a population of 48,000 people, if she were to undertake to do any bedside work? It seemed best to put nurses into the public schools, let them get what defects could be corrected among the children corrected, teach the children the value of health hygiene, form leagues among the mothers and little girls and boys, and in this way get the people educated to the point where there would be less necessity for bedside work and at the same time educate them to the point where they would be willing to give more money so that we could have more nurses.

This is the thing that Miss Crandall does not think wise; she thinks the emphasis is too narrow. My idea is that the school nurse working in the schools has through the children a point of contact into practically every family in a community, and can do all forms of public health nursing except the bedside visiting work, and that by doing the broad educational work larger returns would be obtained in the long run, and hence better economy, the biggest results possible being had from the amount of money spent. The money that would be spent in curing one case of typhoid fever, could easily prevent ten if wisely spent. And this is the theory on which we are working.

When it comes to the question of financing these nurses, Dr. Meigs covered that in her report in saying that it is done for the most part by private subscription. When I want to arouse enthusiasm I usually go to some leading women—and the women of Virginia are doing things—and try to get them interested in raising the necessary amount of money to support a school nurse for one or two years, to demonstrate to the county boards the value of such a

nurse—in the hope that at the end of that time the county will take it over. We have let people continue in absolute ignorance of their bodies too long and why should we? The school nurse is just as important and should be just as much a part of the county system as the school teacher, and she should of course, be maintained by county funds. But we have to educate people to this way of thinking before it can be done.

After raising the money by private subscription, in some cases the counties have taken over a part or all of the support of the nurse, and in some cases the women's clubs have continued the work. In one county the federated women's clubs petitioned the supervisors for an appropriation for a full-time health officer, obtained this, and then raised the money themselves for a nurse, thus starting the idea of a full health program. Several of our counties are working towards this plan.

I am more and more impressed in all of these meetings on public health matters, with the fact that we continue to attack the effect rather than the cause. We flatter ourselves that we have reached that place where we are working at the right end. Somehow I cannot see it that way. I do not see how we can hope to get results until the knowledge that doctors and nurses possess belongs in the main to all of the people; it does not seem to me that public health is the prerogative of doctors and nurses, but that it belongs to the people, and until we can get the people to assume their responsibility I do not think we can accomplish a great deal. And I think that it is through the schools that we are going to spread the necessary knowledge.

Now we have to pay nurses to instruct mothers in knowledge that should already be theirs. When the girl grows up if she has had the proper knowledge given her in school, she will have her own knowledge ready when she is a mother.

You cannot limit nor define just what knowledge is necessary. The whole problem is so interwoven with every other problem that I do not see how you can disassociate them. At this meeting, labor laws, industrial hygiene, social hygiene, eugenics, sanitation, as well as other points have been discussed, all as having a bearing on infant mortality. In a mining camp here in Virginia I was asked to get a nurse for infant welfare work. Her first letter asking for advice had nothing to say in regard to what she should do for babies, but dealt entirely with the sanitary conditions of the camp.

Then there is another thing with which I have been struck at this meeting. We have talked incessantly about the mothers. Nobody has said a word about the fathers. It seems to me that the fathers have to assume some responsibility, too. It has been said at this meeting that the woman must be given aid in her household affairs during pregnancy, and for a given length of time after the baby comes. It seems to me that this is an economic question, and my observation of the economic status of a married woman is that it is nil! She cannot say what she shall have and what she shall not. We will have to educate the husbands and fathers to the idea that it is their responsibility to take care of the mother, and give such living conditions as to insure as far as possible the life of both the mother and the baby.

In one of our counties I tried to get an appropriation for a nurse. I appealed to the supervisors, and the men had tears in their eyes when I described conditions as I had actually seen them, but they said they were sorry they could not give the money for a nurse, as they had just given all they had to spare for a county farm demonstrator, as they had been having trouble with their hogs.

It seems to me that we have to educate the fathers to provide proper living conditions; just as we have to educate the mothers to be home-makers, and rearers of children, and the place to begin with is in the schools, to teach both the little boys and little girls in their early A B abs, their real responsibility, the value of health and the laws of hygiene.

The same thing is true in regard to what Dr. Meigs said about adequate medical attention; the husbands have to finance that. In many instances they do not hesitate to pay thirty dollars for a veterinarian for their stock, but when it comes to the woman, the function of child bearing is only normal. They are awfully careful of their stock! They will have to be educated in many instances to be as careful of their wives. It is a matter of ignorance.

And finally, Dr. Meigs has asked me to say something about what we are doing to educate nurses, or to supply the demand for nurses for this work. The ordinary graduate nurse, however good as a private duty or institutional nurse, has not had the social vision, nor the knowledge of preventive medicine necessary for public health nursing. Here in Virginia we feel that we must have Southern women to do the work, for they understand our economic conditions and our easy-going ways. Until this fall there have been no facilities here for the special training of public health nurses, and almost none of our nurses had had the training elsewhere.

In June, I found myself with several positions to fill and no nurses available to take them. We have taken the position that we will not recommend a nurse to a position unless she has had either successful experience in public health nursing or special training. In order to fill the positions that were waiting we decided to run a six weeks' course in public health nursing at the State Board of Health. We sent circular letters to all the graduate nurses in the state, telling them of the course proposed and of the opportunities for work, at the same time explaining that this course was not supposed to take the place of courses offered by Simmons, Columbia and other established schools, but was being run only as an emergency to meet the immediate need.

Ten white nurses and two colored nurses enrolled for the course. I went to all the lectures with the nurses myself, and was in constant conference with them. We got in ninety hours of lecture work, and ninety hours of field work in the six weeks. Every agency in Richmond engaged in works along these lines co-operated with us. Three hours a day was spent in the field, and a like amount in lectures. Throughout we emphasized the social and preventive medicine aspects of public health nursing, attaching but little importance to the nursing and curative sides, thinking that the nurses had had all of this in their training and after experience. What we wanted to give them was social vision, and a public health viewpoint.

At the end of six weeks, those women were "all in," for 'twas hot and they had worked. But I have never seen such enthusiasm. They came to me, and told me that they were "new women," that "their eyes had been opened to things of which they had never dreamed before," and that they "would not take a thousand dollars for it."

Some of them have taken positions, gone into the field, and are doing work I would be proud of anywhere.

The Chairman: I will now call on Dr. Flannagan.

THE EFFECT OF THE WAR UPON PROBLEMS OF MATERNAL AND INFANT WELFARE IN RURAL COMMUNITIES

ROY K. FLANNAGAN, M. D., Health Officer, Richmond

From my knowledge of rural conditions, which I must confess is confined almost wholly to Virginia, it is my deliberate opinion that the war will not affect adversely, to any appreciable extent, the mothers and babies of the South. It may indeed, if the social conscience be stirred, possibly prove to them a blessing in disguise.

The duties of the rural mother in the South—and I speak of the great mass of farmers' wives, not the exceptional ones—fill up her day absolutely, and the war, while it may change some of her duties, cannot by any chance render her more busy than she now is. There is great room, however, for more knowledge, greater efficiency and less complacency among them, for the conservatism of the farmer has tended to subordination in the wife for so long that deep-rooted tradition demands acquiescence in conditions as they have always been, and the wife has made little protest.

For a long time, in fact since that other war of more than half a century ago, Southern farm women have had to do what their Northern and Western sisters have always done, namely, bear the full responsibility for the kitchen and the dairy, and perform most of the labor there. To these duties is often added the family washing, the care of the poultry yard and the garden. The sewing and mending of the family must also be done, and midnight often finds her tired hands "plying the needle and thread." Is it any wonder that wife-mortality is so high in the country? Her work is never done until death closes her eyes. The servant question has long since ceased to bother the farmer's wife. "There ain't no such animal" as a servant.

There are few conveniences on the average farm. Innovations are frowned upon, the attitude of the farmer being "what was good enough for mother is good enough for wife," and so unrelieved drudgery is often her portion.

War may increase the city mothers' burdens, for she is used to depending upon the conveniences of a highly organized community, but the peculiar ills that follow in its train will not bring with them more or larger burdens to the country woman, with her self-dependent habits of thought and life, but a more definite and detailed apprehen-

sion, however, is sure to come to her of the burdens already borne for years, and perhaps, also let us hope, with the clarified vision, a sense of her major importance in the scheme of things.

The country mothers' case may thus be stated: The grown son or brother will go to war, but he would have gone to the city if war had not come, so the burden on the mother in this respect is just the same.

The hired man leaves for the cantonment or the munitions plant because of bigger pay, but he has for a long time past been an uncertain quantity, so there is but little difference here.

The field work must be carried on with the mother's help or contracted to the capacity for work of the father and the younger children, but no new problem is involved in this, for there has been a steady decrease in the acreage cultivated on the small farm for this reason for years past.

The young doctor of the neighborhood will go to war, but the mother and the children rarely received his attentions until they were too sick to get the most profit from them. The defectiveness of country children has been demonstrated, and second and third wives of farmers are very common indeed.

The midwife is the country mother's dependence in childbirth and is always present when the baby arrives, even when the doctor is called. The granny will now simply go it alone, and the mother, if we can trust the result of certain investigations by the State Registrar of Vital Statistics, will not be much worse off.

To cite a few Virginia figures bearing upon this point: The death rate from accidents in childbirth of all kinds, exclusive of puerperal sepsis (childbed fever), in the cities of Virginia is 15.6, and in the country only 14. Deaths from puerperal sepsis in the city furnish a rate of 16.3, while in the country the deaths from this cause are only 6.4. With these rather startling figures in favor of those who live remote from physicians' attention, the expectant country mother if statistics are to be believed, has small ground for worry at the absence of her doctor.

The proportion of midwives to doctors in Virginia is indicative of a large public demand, there being nine thousand of them registered at the Bureau of Vital Statistics of Virginia and only twenty-one hundred doctors. It is therefore useless, unless we can prove

a stronger case against the midwives than at present, to talk of abolishing them. We will have to approach the problem in another way.

Now as to infant mortality: The rate for infantile diarrhea in infants under two years in Virginia cities is 96.5 per 100,000 of population, while in the country it is 49.2, or but little more than half—another point that seems to indicate that the scarcity of physicians works small hardship to the country child.

Infant welfare and maternal welfare are indissolubly bound together. Laborious though the country mother's life may be, it does tend to that vigor of body necessary to bring her safely through the ordeal of childbirth and its subsequent drain upon her life. The country mother, too, is less often than the city mother influenced by those considerations which so often operate to deprive the infant of the birth-right of its mother's milk; and so, though insanitation is often rife, with soil pollution universal and the ubiquitous house-fly present in inordinate numbers on the farm, the babies survive there in greater proportion than in the city. However true this is, human welfare cannot be judged in mathematical terms, and as long as one country baby dies it is the part of sociologists to devise ways and means to forever banish the causes that contribute to its passing. Whatever figures may say, we know that thousands of babies and mothers are dying, in country and in town, and many more are incapacitated for life, because the ignorant midwife is unclean and unable to cope with the accidents of labor. We must meet the problem somehow. We will therefore be wise if we capitalize by some means the sentiment which war psychology is developing. It may be that some poor shreds of good shall be salvaged from the storm of war that will soften in some degree the inevitable woe in store for the mothers of the land.

It is impossible, of course, to secure a substitute for the doctor, but much may be done towards lessening the need for his services, and it is in this domain that our efforts must lie. This means that the public health field must be cultivated intensively and by agents hitherto unavailable.

The ministration of a trained public health nurse in every country neighborhood would nearly solve the problem, but this, of course, is impossible for a long time to come. We are therefore forced to

the conclusion that undergraduate nurses and social workers must be thrust into the breach. After a season of such training as the resources of most communities can supply, such workers can do valiant service.

If the untrained, ignorant, dirty midwife has been able for generations to meet the obstetrical needs of millions of the women of the nation, why may not fairly educated, clean, intelligent women acquire quickly sufficient knowledge of prenatal care and obstetrics to aid the midwife whom it is impossible to displace, to get better results than hitherto.

I am aware that the proposal to use undergraduate help will make many doctors throw up their hands in holy horror and registered nurse associations, facing the difficulties of increasing nursing standards, protest vigorously. If, however, such a proposal will hasten the training of public health nurses and social workers in large numbers, the sooner we start an undergraduate agitation the better. In other words, let us bridge the gap with a grape-vine bridge if the modern steel structure is impracticable at this time. We are fording the stream now, and many are being drowned. The public health nurse for the country is a permanent need in time of peace, and in time of war it is a crime not to have her at hand. The demand for public health nurses has grown beyond the capacity of the training agencies to supply. The hospital training schools for nurses have hitherto given no public health instruction, and the ranks of the public health nursing corps have had to trust for recruits to the awakening here and there of nurses in the field who, seeing the need, enlist, and by practical experience acquire the necessary skill and social point of view.

Here in Richmond a start is being made at the Virginia School for Social Work, which has just been established, but a shorter cut must be found if the country mother in the next year is to receive the aid she needs, for an adequately trained public health nurse is not developed in a day, and when developed quickly finds a place, at fair pay, in city or town, leaving the country unprovided for.

I would suggest that the women's organizations which are now so fired with a desire to help their country in its time of need select from among the young women who present themselves for patriotic service those whose qualities of heart and head are such as may be

depended upon for long continued, and perhaps, disagreeable tasks, and send them for training to a training school for social workers, or to the office of some doctor who works among the poor.

Every country physician who is still on the job should take a woman into his office and instruct her as a nurse and a community helper in this time of stress. Every rural nurse should conduct special courses in midwifery and bedside nursing for groups of earnest women. A knowledge of cleanliness and of what not to do at the bedside is not difficult of acquirement and is the most valuable possession of any nurse. The essential principle of the prevention of contagion may be stated in the sentence "be clean," and the young woman thoroughly imbued with that idea may, if she has force of character, command even the attention and obedience of a self-sufficient midwife.

Such a person may be a real God-send to many a home, and it is not to be doubted but that many lives, little and big, would be saved by her ministrations.

To repeat, the problem of maternal and infant welfare in the country is not then one that war has brought or is bringing so much as one that war preparedness may largely solve. The rural mother's problems have long been acute, but she has borne them without a murmur. She has suffered the pains of travail and has seen her baby die, not knowing that knowledge, easily provided, might have saved her little one. Against the background of lurid war, this patient mother stands outlined, claiming from the social servants of the land a recognition of her need. The producer and the sustainer of the soldiery of the nation challenges the thought and the energies of those who know, to the developing of the instrumentalities and the providing of the personalities that shall apply themselves to the preservation and the conservation of the source from which springs the main strength of America.

DISCUSSION

The Chairman: I have asked Miss Townshend to tell us something about infant and maternal welfare nursing in a small rural district.

Miss Lena Townshend, Hot Springs, Va.: I have heard that in order to be a good public speaker one must get up, speak up, and shut up; I hope our Chairman will tell me when to do the last of these things.

The work of a visiting nurse has been said to be the art of bringing about the best results from the most disadvantageous circumstances. The country

nurse is worse off than the nurse doing her work in the city, because she has not as a rule, any relief-giving agencies to call upon, nor has she influential committees to look after the housing conditions or to aid in the enforcement of the labor laws. She has all the problems of the city nurse and more besides.

Her first duty in taking up the work in a rural community, should be to make a mental survey of the district, in order that she may get in touch with the people and have some understanding of the conditions under which they live. She must familiarize herself with the child labor laws and also, with the laws regarding the registration of births and deaths in the state in which she is working. If there are any health or social agencies—it is very seldom there are—she must get in touch with them and know their limitations and possibilities. She must plan to co-operate to the fullest extent with the State Board of Health, especially with the Bureau of Vital Statistics, and she must, of course, enlist and maintain the co-operation of the physicians in the district.

The district that I have charge of has a population of about 1,000 people. It is composed of seven or eight villages, and the scattered homes up in the mountains. It is supposed to be an area of ten square miles, but this winter I had to take up the educational work as well as the bedside nursing so that it was perforce enlarged to almost twice the size.

In order that the infant and the maternal welfare activities in the rural districts may be as extensive as possible, it is well for the nurse to see the physicians in the district and get them to report to her all prenatal cases so that she may visit them. If she does not attend the confinement cases she should ask the physicians to notify her as soon as possible after the delivery of the child so that she may not only begin her work at once with the mother and baby, but may very often be able to do a great deal toward the prevention of ophthalmia neonatorum. Another agent that is of great help to a country nurse is the grateful patient, the patient to whom the nurse has already given prenatal instruction and postnatal nursing care. These are the missionaries of the district. I have in mind one woman who had eight children. I gave her prenatal instruction in the case of the ninth and if I did not get around to see her quite often, when I did pass she would hail me, stop my buggy, come out and say, "I have another case to report to you." She keeps me in very close touch with the prenatal cases, and that really is one of the biggest helps to the country nurse.

In making prenatal visits the work can be advanced by leaving with all the women who can read a copy of the Children's Bureau pamphlet on "Prenatal Care." Later the mother should be given a copy of "Infant Care."

The Hot Springs district has a community house, and we are rather privileged above other communities in this way. It was built for our use and has a dispensary, a well equipped operating room and several beds for patients. It has a social hall, and living quarters for the nurse. But the hospital part was built for emergency cases only. We have had several appendicitis cases and several accident cases—principally workmen in the neighborhood. They say air castles are all right if you put foundations under them. The air

castle has been built, but the vision I have is that in the future that community house shall be used as a maternity hospital, and that arrangements will be made so that women can come into the hospital before confinement and get the benefit of nourishing food and rest and urinalysis. In places in which there is no community house I would think that a private house could be used for the same purpose, and that the maternity center could be started by putting one of Dr. Flannagan's practical nurses in charge of the house with the visiting nurse very near to supervise and to be on hand at the time of confinement.

The Chairman: We are very much obliged to Miss Townshend for telling us of this plan for a community house. It is the nearest approach I know of, to the plan outlined by the Victorian Order of Nurses in Canada, of small cottage hospitals where maternity cases can be received. No one who has not visited the Far West, can know how great is the need for such hospitals.

Miss Genevieve Robb, Litchfield, Conn.: Litchfield has a population of about 3,005, divided into several districts. In the center of the town there are about 1,500, four miles away 150, four miles in another direction 600, eight miles in another direction 850, and then still another district of about 25.

About a year ago we tried to start infant welfare and prenatal work and visited five doctors to ask if they would co-operate. They seemed interested in it and went over our leaflets and promised to report patients to us. We asked them if we could start a well-baby clinic. They were afraid it would interfere with their practice, but they said we might have meetings of the mothers and if the nurse found that the babies needed medical attention that could be referred to their own family physician.

In each district we have a committee of the most representative women we can find, and they report all cases to us, prenatal and postnatal. As soon as we hear of a prenatal case we send the prenatal pamphlet and visit the mother, and when the baby is born we visit the mother again. So far we have had four meetings at which we have had talks on general infant care. At one of them a worker from the County Farm Bureau gave a talk on food for children under school age. At each meeting we plan to have a different subject discussed and in that way we hope to work up to a well-baby clinic, but at present the doctors do not seem to want to take it up.

Dr. Taliaferro Clark, U. S. Public Health Service, Washington: I am deeply interested in any measure for public health betterment in rural communities, and, but for the time limit imposed would be tempted to tell you something of the work done in this respect by the Public Health Service under my administration assisted by a corps of trained officers in a number of states in connection with field investigations of school hygiene.

However, I do want to say a few words about what the Public Health Service is doing in co-operation with the Red Cross in sanitating areas contiguous to military cantonments throughout the country, and the beneficial effect we hope the measure adopted will have on the general health of the community, and incidentally on the physical welfare of mothers and children.

Congress has just appropriated \$300,000 for that purpose, and the American Red Cross will supplement the fund to such extent as may be necessary wherever local resources are insufficient to cope with the situation.

A recent article by Sir Arthur Newsholme, Medical Officer of the Local Government Board of Great Britain, analyzing the causes of infant mortality from a statistical standpoint, clearly shows that we cannot fix on any one thing as the cause of infant mortality, otherwise the problem would be easy of solution. For instance, accepting the relationship of infant mortality to the size of the family, he points out that in many communities where families are small the mortality is higher than in others where large families are the rule, which shows that other influences are at work. Among these other influences he mentions environment. An environment, therefore, which adversely affects the general health of the community must also influence the infant mortality rate.

I am familiar with a community in which infant mortality is excessive. When a young man and woman of this rural section decide to marry, they select a suitable location for a cabin. The chimney of this cabin is usually built of sticks chinked with clay. To secure the clay a hole is dug in the ground nearby which is never filled in. In due time this always fills with water and becomes a prolific breeding place for malaria-bearing mosquitoes. Practically the first-born child in every home of this description throughout the community dies of malaria.

Furthermore, those of us who are interested in public health problems have long recognized the effect of bringing pure water into a community in reducing infant mortality. In other words, these two examples are cited to show the effect of changed environment on health.

Operating along these lines the United States Public Health Service in co-operation with State and local health authorities and the American Red Cross has arbitrarily selected an area five miles wide surrounding certain cantonments and operating under the authority of the State Board of Health, are sanitating these communities. House to house inspections are made; the people are taught to protect their water supply, to put concrete protection around the wells, concrete privies are being installed at all the houses in these areas largely at the expense of people themselves, and due attention is given to safeguarding the milk supply. It is furthermore proposed to establish an intensive school inspection and to employ nurses to follow up cases into the homes.

I feel that not only will these things have a great effect upon the health of the soldiers, but also a great educational effect that will extend into other communities and bring about better conditions in other rural districts.

I agree with Mrs. Ranson as to the efforts of school nurses in spreading the doctrine of sanitation in rural communities. In many rural districts it will be necessary to rely on the co-operation of individuals because we cannot impose sanitation measures en masse as in cities, such as the induction of pure water and sanitary disposal of human excreta. It is largely through the help of such people who go into the country and devote their lives to this work that the sanitary redemption of many rural communities can be brought to pass.

Miss Mary Powers, Director, Bureau of Child Welfare, Provincial Board of Health, Toronto: I have the honor to represent the Bureau of Child Welfare of the Provincial Board of Health of Ontario, but I think probably the members of this section may be interested in an experiment which is being carried on in Manitoba, where the Province was faced with a lack of medical and nursing care in rural districts. They attempted, by a system of Provincial public health nurses, to aid along these lines. In 1916 the staff consisted, if I remember correctly, of five nurses, and this year they hope to secure ten additional nurses. Any one who is particularly interested may communicate with the Secretary of the Provincial Board of Health, Winnipeg, Manitoba.

Another one of our provinces, Saskatchewan, attempted to help out in rural districts. The Commissioner of Health took the opportunity, upon the establishment of his Department, to have the hospitals put under his control, and a systematic attempt is being made to standardize the equipment, etc. Provision has been made whereby municipalities may unite to erect a hospital. That the people appreciate and make use of this hospital accommodation near their homes is shown by the fact that in one of these rural hospitals thirteen patients were confined within twenty-four hours. Those desiring detailed information may secure same upon application to Dr. M. M. Seymour, Commissioner of Health, Regina, Saskatchewan.

In the Province of Ontario, the Bureau of Child Welfare is only a year old, and during that time we have been, as someone has said, tabulating everyone else, but I may say that during June and July of this year we made an infant mortality survey (carried on according to the plans and methods of work employed by the Children's Bureau at Washington) in the City of Hamilton, report of which work is now being tabulated. We have done no special work along the line of strictly rural assistance as yet, but the matter has been brought strongly to our attention by the local authorities of the City of Toronto whose work is confined within the city limits but who daily come in contact with mothers and babies living in adjacent municipalities who require the services of a public health nurse. If the plan we have in mind can be carried out, it should result at the end of say five or ten years in an increase in the number of municipalities employing local public health nurses.

Recently eight or ten places between Toronto and Windsor have asked for our Child Welfare Exhibit and we are sending it with a sample baby clinic in charge of a competent nurse. In the near future, we hope to secure a large motor truck equipped with storage batteries. We will then be able to show health films in places in which there is no electric power and work in the rural school centers, thereby reaching the total population through the schools. If we can show the people in the country districts what a county or township nurse can do and show in a local hall what a baby clinic is, we hope to do a great deal in the way of improving conditions for the mothers and children in the country districts.

Miss Rebecca Shatz, Henry Street Settlement, New York: Replying to Dr. Flannagan's suggestion recommending the use of undergraduate nurses,

I would like to tell of a plan that has been worked out in the Henry Street Settlement. As soon as it was recognized that the American Red Cross was going to call out a large number of nurses, the larger nursing associations felt it was incumbent on them to put as many trained nurses into the field as possible so as not to lower the standard of nursing. The large hospitals were circularized by one of the sub-committees of the Council of National Defense and urged to take on a large number of pupils to offset the shortage of nurses.

To meet this need the nursing service of the Henry Street Settlement offered to co-operate with any of the hospitals that wished to send us third year pupils for training in public health work. Thus far we have arranged to take twelve third year pupils from four hospitals who are hoping to undertake the same plan. In addition to this, in the experimental maternity zone opened last month, we are giving training in obstetrical work to two pupil nurses from a maternity hospital. The Settlement houses and maintains these pupil nurses and supervises their training.*

Dr. M. P. Rucker, Richmond: This whole question seems to revolve around the question of prenatal care. I would like to ask just what proportion of the pregnant women you really reach. In Richmond my experience is that there is a great deal of trouble in getting patients. We have prenatal clinics and we could not get the patients. And it was only after convincing the district nurses that we really were benefitting the mothers by giving them prenatal care that we got our clinics well patronized. As soon as we got some cases we tabulated them and compared them with Miss Minor's records. The only difference in treatment was that ours had prenatal care and hers had no prenatal care. But the difference was so marked in results that since that time we have had no trouble. I would like to know what proportion of the pregnant women the nurses usually reach. I would like to ask this question of Miss Townshend.

Miss Townshend: I could not say what proportion of prenatal cases I come in contact with, but I know it has much increased since the 1st of January. The women who have had the benefit of the work themselves and who became interested in that way have been our best missionaries.

This closed the discussion.

* The number of pupil nurses who are receiving this training has since been increased to 25.

NURSING AND SOCIAL WORK

Tuesday, October 16, 1917

COMMITTEE

CHAIRMAN

MISS MINNIE H. AHRENS, Supt., Infant Welfare Society of Chicago
MISS JOSEPHINE L. BREED, Los Angeles
MISS M. C. CRETCHER, Scott City, Kansas
MISS M. L. DANIELS, Director, New York Diet Kitchen Assn., New York City
MISS M. F. ETCHBERGER, Supt., Babies' Milk Fund Assn., Baltimore
MISS ALICE HALL, District Nursing Association, Providence
MISS MARY A. JONES, Supervising Nurse, Visiting Nurse Assn., Fall River
MISS HELEN W. KELLEY, Supt. of Nurses, Health Department, Chicago
MISS ELISABETH SHAVER, Supervisor, Babies' Milk Fund Assn., Louisville
MRS. LENA H. AUSTIN SMITH, Baby Hygiene Association, Boston
MISS MARY C. TRIMBLE, Supervisor, Babies' Milk Fund Assn., Evansville, Ind.
MISS ESTELLE L. WHEELER, Superintendent, Washington Diet Kitchen Assn., Washington, D. C.

SUBJECT

**PROBLEMS THAT HAVE ARISEN IN CONNECTION WITH INFANT AND
MATERNAL WELFARE WORK AS A RESULT OF THE WAR AND THE
WAY IN WHICH THEY ARE BEING MET**

SYMPOSIUM

PREPAREDNESS IN INFANT AND MATERNAL WELFARE WORK

LENAH AUSTIN SMITH, R. N., Superintendent of Nurses, Baby Hygiene Association, Boston, Mass. Child Welfare Supervisor, State of Massachusetts, Boston District.

The investigations made in Boston for the State Committee on Child Conservation lay no claim to being original or unique. The problems in infant and maternal welfare work are, in the main, no different from those of any large city. The work which this committee has outlined, however, has made necessary an "account of stock" by the organizations doing this work, with the result that not only have our weak points been exposed but it has also been shown how existing agencies could co-operate and co-ordinate their work to better advantage. The method by which this was done may be of interest to those of you who are already engaged in or planning similar investigations.

Before going into the details of the work in Boston the objects of the state committee may first be set forth by quoting from an article in the Public Health Bulletin of the State Department of Health for September, 1917.

"Massachusetts has been in the forefront in baby saving and now has an opportunity of greatly increasing child conservation by assisting those agencies and organizations already engaged in child hygiene and by stimulating the establishment of such in communities where little work of this nature is being done. The Division of Hygiene of this Department has been working along these lines, but in view of the present extraordinary conditions and because the importance of the conservation of child life at this time particularly can hardly be overestimated, the Commissioner of Health has appointed a Committee on Child Conservation to work in close co-operation with the Division of Hygiene, to promote further this special work. The Committee is as follows:

- Dr. David L. Edsall, member of the Public Health Council of the State Department of Health, *Chairman*
- Dr. William J. Gallivan, member of the Public Health Council of the State Department of Health
- Dr. Lyman A. Jones, Director, Division of Hygiene of the State Department of Health, *Recorder*.

Advisory Members

- Dr. Fritz B. Talbot, pediatricist; Chief of Children's Medical Department, Massachusetts General Hospital
Dr. Richard M. Smith, pediatricist; Assistant in Pediatrics, Harvard Medical School
Dr. William Healy, psychologist; Director of the Psychopathic Institute of the Juvenile Court, Chicago
Miss Mary Beard, Director, Instructive District Nursing Association
Mrs. William Lothrop, member, Committee on Civilian Relief, Red Cross
Dr. Robert L. DeNormandie, pediatricist and obstetrician

The specific object of the work of the committee is to demonstrate to cities and towns the necessity for child conservation work and to point out the agencies needed for baby saving for that particular town. It will also be a part of its work to stimulate the communities throughout the State to provide funds for the employment of trained workers to carry on this work in each community. The work will be done by child welfare supervisors—especially trained and experienced nurses—one for each of the eight health districts in the state. These supervisors will work in co-operation with the State District Health Officer in each district, making surveys of individual communities and discovering what the actual health conditions are. When the special problem of a city or town has been determined, definite effort follows to prevail upon that city or town to provide funds to meet its individual needs.

Funds for the payment of the salaries of these supervisors have been secured from the Red Cross, thus saving the state funds as far as possible and enlisting a widespread outside interest. The sum of five thousand dollars has been granted by the Governor and Council for the purpose of defraying the expenses of the field workers."

The Eastern health district, which includes Boston, has two supervisors, one for the City of Boston and one for the outlying cities and towns. The Baby Hygiene Association was asked to allow its Superintendent of Nurses sufficient time from her regular duties to act as supervisor for Boston, which request was readily granted.

The first work of the committee was to make a survey of the entire state, and this was begun for the Boston district in July. Although Boston is not so large that a few individuals familiar with the infant and maternal welfare work of the city could not give a fair and accurate statement of the resources and needs of the city, it was

felt that our recommendations would carry more weight if we had the views of many individuals, field workers as well as head workers.

This information was obtained through a questionnaire sent to the nurses of the Baby Hygiene Association and to the supervisors of the branch stations of the Instructive District Nursing Association, also to the head workers of settlement houses. Nurses were instructed to consult with Associated Charities and other social workers in their district, so that all interested would have an opportunity to express an opinion.

The questionnaire sent was as follows:

PRE-NATAL CARE

1. What organizations in your district give prenatal nursing care?
2. Is there a clinic for expectant mothers where they can be examined by physicians before confinement?
3. Do the mothers in your district receive adequate obstetrical care?
4. Do you feel that there is further need of prenatal or proper obstetrical care for the mothers in your district? If so, which, in your opinion is the most needed, and what is the best way to meet this need?

POST-NATAL CARE

First Year of Life

1. Names of clinics for well babies in your district.
2. Names of medical clinics for babies.
3. What, in your opinion, is the most urgent need of the babies in your district?
4. What remedy would you suggest?

POST-NATAL CARE

1 to 5 Years

1. Is there any organized supervision of well children between milk station age and school age in your district?
2. Are there any organized classes of mothers at settlement houses or elsewhere which could be given instruction in child hygiene?
3. What, in your opinion, is most needed in your district, prenatal care, obstetrical care, post-natal care during the first year of life, or supervision between the ages of one and five years?

You will note that the questions are few in number and simple; the object being to obtain from each nurse or from each group a definite statement of fact as to the conditions in the district in which they worked. The answers were tabulated under the three main headings in the questionnaire. Although the districts covered by these nurses were not confined to ward boundaries, it was necessary, in

the final analysis, to take a ward as a unit, as it was only in this way that we could obtain birth rates and death rates for a given area. It was impossible to include deaths due to diseases of pregnancy or the puerperium, as these figures were not available at the time the survey was made. In practically every instance two sets of answers were obtained in each district, from nurses, who naturally viewed the problem from different angles. The answers were, however, surprisingly uniform. Whenever there was a disagreement, it was reconciled by personal interview. The final result gave one at a glance the birth rate and infant mortality rate, the agencies doing infant and maternal welfare work and that type of work most needed in each ward. A map of the city was also made, showing the location of prenatal nursing stations, obstetrical clinics, well-baby clinics and sick-baby clinics.

The final recommendations made to the committee were as follows:

1. To inaugurate a publicity campaign to acquaint people with the agencies working in their districts and the aims and purposes of these agencies.
2. To make some arrangement whereby every baby born will be referred to a milk station, when proper home care cannot otherwise be given.
3. The immediate need of 5 prenatal and obstetrical clinics, 2 sick baby clinics and 2 well baby clinics.

FOR FUTURE DEVELOPMENT

1. Supervision of children to school age.
2. An obstetrical nurse to be present at home deliveries.
3. More hospital beds for obstetrical patients.
4. Visiting housekeepers.
5. More intensive and extensive prenatal and postnatal work.

Representatives of organizations doing infant and maternal welfare work were called together by the committee, the recommendations presented and each one asked what his organization would do to meet the demand. Up to the present time one organization has agreed to open three new pregnancy clinics, another will enlarge its district to cover an area where prenatal and obstetrical work is much needed. Two new infant welfare stations will be opened by the Baby Hygiene Association and also one clinic for the supervision of older children. Plans are also under way for opening one new sick-baby clinic.

This, in the short space of three months, has been the contribution of the City of Boston to repair the waste of war by preserving the lives of its future citizens. Due primarily to the keen foresight of the State Commissioner of Health and developed by a most capable and efficient committee on child conservation, the infant and maternal welfare organizations, themselves crippled by thinning ranks and revenues, have been only too glad to step forward and meet this demand.

NURSING PROBLEMS AND HOW THEY ARE BEING MET

ESTELLE L. WHEELER, R. N., Superintendent of the Diet Kitchen Association, Washington, D. C.

In the first annual report of the Canadian Patriotic Fund Sir Baden Powell says: "The true victory will lie not so much in the actual tactical gains on the battlefield today as in the quality of the men who have to carry on the work of the country after the war. War kills off the best of a nation's manhood; therefore, extra care must be exercised to save every child—not for its own sake or for its parents' sake, but for the sake of the nation. It has got to be saved—saved from infant mortality, then from ill health, and finally, from drifting into being waste human material. We must economize our human material. Each individual must be made: (1) healthy and strong, (2) endowed with character, for becoming a valuable citizen for the state."

Realizing this situation how are we going to meet the demand for *more* constructive work with fewer workers?

Washington, being the center of war preparations has been called upon to send a large quota of physicians and nurses to the front, so it seems necessary to take stock of our resources for a Home Guard for Public Health Work.

1st. The physicians. Twenty-five per cent. of our infant welfare physicians have already gone and there is a probability of our staff being further depleted, so we are trying to ascertain what time those remaining can give to the prenatal and postnatal conferences. Some senior medical students are helping with the conferences under supervision and we believe they will prove of great assistance.

2nd. The Nurses Association asked all nurses, graduate or practical, to register, stating what service they can be called for. A number of married nurses and others who had been off the active list registered for all or part time. It may be interesting to know that two of these nurses acted as substitutes in the infant welfare work this summer and will fill vacancies if staff nurses leave for Red Cross work.

3rd. Volunteer workers. We have started classes to train volunteer workers for nurses and helpers; the duties of these volunteers are to

- a. Assist at conferences
 - Take charge of waiting room
 - Weigh babies
 - Do chart work
- b. Make friendly visits to homes where mothers do not need special instruction. Nurses always make the first home visit.
- c. Be familiar with all social service agencies in the city, as this is a great help in assisting the nurse in working out family problems.

Carefully selected volunteers are doing excellent work and we believe this is a most essential part of the plan to get the best possible results in the maternal and baby welfare work.

The volunteer relieves the nurse of many duties, the nurse in turn instructs mothers whose babies do not need the doctor's advice. This makes it possible for all prenatal and postnatal cases who need medical advice to see doctors.

4th. Co-operation of all baby and child welfare organizations. Washington has been fortunate in having a well-organized Red Cross Civilian Relief Committee which co-operates with all the social service organizations. This Committee refers all prenatal cases and families of soldiers having babies under two years of age to the Washington Diet Kitchen Association. Our nurse visits the family and urges the mother to co-operate. We are asking *all* mothers to consider it their special patriotic "bit" to be good homemakers and thoughtful intelligent mothers. We ask mothers to come to the conferences regularly even though we are often without a physician in charge. In this way the nurse can watch the babies and if necessary call a physician.

The Red Cross Home Nursing Classes prepare women to nurse minor illnesses in their own homes under the direction of a physician. This is another way in which the lay-woman can relieve the nurse for duty where she is really needed.

Not only the co-operation of the poor is needed in solving the Home Service problem. We are asking everyone to send their sick to the hospital whenever it is possible. In this way a large number of patients can be cared for by fewer doctors and nurses.

An entirely new problem for the social worker to meet is one of over-employment. There is work for everyone in Washington now, and it is difficult to make a mother realize that it is more important to stay at home and nurse her baby than to earn money to buy patent food and pay a poor caretaker. This brings up the ever-present question of proper nourishment. The cost of milk is almost prohibitive for most of our families; are we going to let the babies use proprietary foods or must we go back to the old days of dispensing milk for what people are able to pay? These and similar complications will undoubtedly arise but better days are ahead for the baby; the world is at last awake to the fact that to have world-wide justice and liberty we must begin with the "littlest" citizen.

PROBLEMS OF MATERNAL AND INFANT WELFARE WITH REFERENCE TO WAR CONDITIONS

JOSEPHINE L. BREED, R. N., Los Angeles

We members of the Association who live in California are looking forward to the time when the Association will hold its annual meeting in Los Angeles.

California is peopled from nearly every quarter of the globe. The customs differ, but we all have one interest at least in common—the child. The State as a whole needs public sentiment aroused to the value of co-ordinating its activities for preventive work among our infants. Hardly had our soldiers left when in one of the daily papers there appeared an article stating that Los Angeles County has eleven hundred babies in its direct charge, that fathers have gone to war and mothers gone to work, and the day nurseries are overcrowded.

With prices constantly going higher, one question is how to get all the good milk to our infants and young children that they need. Nine years ago there was no certified milk in Los Angeles County, and not until October 1, 1916, only one year ago, were all dairymen required to pasteurize milk where cows were not tuberculin tested. Is there much wonder with certified milk prohibitive in price to the

average wage-earner that proprietary foods are very generally used? Probably if statistics were gathered they would show two-thirds of the babies here who are artificially fed to be getting a certain brand of condensed milk.

The baby hygiene nurse who inspects boarding homes under the San Francisco Board of Health, finds it difficult to reach the mothers to get their consent to change their babies' formulæ from proprietary foods. Through the Milk and Baby Hygiene Committee of the Association of Collegiate Alumnae, California Branch, practically all needy babies in San Francisco and Alameda County are reached with certified milk through the co-operation of the Associate Charities and visiting nurses of different settlements. The largest group of babies reached are those boarded out by the Associate Charities. A report states that infant mortality in these foster homes has been reduced to 2 per cent. and tuberculosis practically wiped out by using certified milk.

The City of Los Angeles under its department of health is reaching about one hundred babies daily with certified milk. The service is limited to those who live within walking distance of the four stations in the poorer districts. Stations are limited because funds for nurses to do the work are limited. Not long ago a grandmother who had been watching a nurse give a demonstration on the preparation of food came to her asking for advice as to what to give a month-old baby who was not getting enough milk from the mother's breast to satisfy. During the interview the nurse asked if the mother were worrying and if that were causing the milk supply to be depleted. To which the grandmother replied, "She says not, but three men from our family have gone to war." This incident seems full of suggestion for our immediate need.

San Diego is fortunate in having a nurse with large experience in infant care at the head of its Municipal Child Welfare work. She is assisted in the two milk stations by three pupil nurses from the hospitals, and teaches classes of young girls weekly how to care for the baby. This nurse also looks over the birth record of the city and makes at least one call on all those reported from the poorer districts.

She is also very anxious to reach the mothers of the better type.

The problem in Santa Barbara, a city of twenty thousand inhabitants, is how to get skilled care to people in moderate circumstances.

Health Insurance is being considered as a possible solution of this problem.

Women's Clubs in California have done much to awaken public sentiment to the possibilities of constructive work among children by carrying on a propaganda of education through their child welfare committees in the way of baby contests and examinations by score cards.

San Bernardino County has a rural nurse whose services are available for these special occasions.

Riverside carries on weekly conferences for mothers with babies.

The two nurses trying to cope with the needs in Los Angeles County are confronted first of all with inadequate transportation facilities. The nurse's headquarters are the automobile from which she alights in the morning and which picks her up at night. We read of the State's tuberculosis nurse traveling on horseback. Santa Barbara nurses have one car amongst them which they share when long trips are necessary. Two of Los Angeles city nurses have automobiles and one of the county nurses also.

The city of Los Angeles covers an area of 337.92 square miles. The six maternity and infant welfare nurses have two different car lines and two separate telephone services to reckon with in the execution of their duties. Individual work with the infant is absorbed in the stress of more definite action.

Adapting one's self physically and regulating one's dress to meet climatic conditions in California are problems not always given due consideration by those who have not experienced actual service in the field here. The housing problem enters to a great extent into a nurse's judgment for her patient. We feel sure that the idea of a pacifier for babies originated in an apartment house. The family hotels and apartment houses in all quarters of the city of Los Angeles can accommodate 150,000 people and are very popular.

The problems which are already ours cannot be improved under war conditions. Great demands are being made upon us, but we should not forget our own babies.

The appreciation of a definite plan for reaching all our mothers has been demonstrated at the Mothers' Educational Center in Los Angeles. One thousand mothers used the center during the year 1916. Not long ago a mother came 23 miles seeking authentic information.

Such movements as these should be supported by public funds. Few nurses are financially able to give their time. With salaries provided and with co-operation, there are those who, because of the conviction of the preventive value in this work, could, through their own initiative, reach hundreds of mothers who are now wandering along helplessly.

Red Cross nurses are teaching classes throughout the state in general nursing.

Committees on child welfare under women's clubs are making reports of the activities in preventive work. Educational departments are endeavoring through their school nurses to reach the younger children. The program of the committee on nursing and social work under the State Council of Defense is not fully formulated. There is reason to believe that this committee fully appreciates the value of enforcing the state law in regard to the use of nitrate of silver in the eyes of all new born.

At American Lake, Washington, where our soldiers are training, a nurse has been appointed in the sanitary zone.

The needy homes directly affected by having male members called to war are handled by the Committee on Civilian relief.

We should like to submit two recommendations: First, to send requests to proper authorities that nurses trained in infant care be appointed to investigate *all* births reported, making at least one call. Second, that a resolution be sent to the Food Administration as authorized under Congress that efforts be made as soon as possible to help milk producers combine on milk deliveries, with the idea of reducing the prices so as to bring the best milk within the means of all.

HOW FALL RIVER IS TRYING TO MEET ITS WAR TIME RESPONSIBILITIES

**MARY A. JONES, R. N., Superintendent of the District Nursing Association,
Fall River, Massachusetts**

One effect of a nation at war is to make every community keen to relieve the hardships of the more unfortunate in their midst. Sympathies are extended especially to those who are deprived of any portion of their income because the heads of the families have either enlisted or been drafted into the army. It was because of this feeling that the Fall River Chamber of Commerce last April appointed a Com-

mittee on War Relief whose duty it was to visit the homes of all men who had left the city for this reason, and to give such assistance as seemed required. This committee later, to avoid duplication of effort, was merged into the Civilian Relief of the Red Cross. Up to the first of October sixty-two families have been aided to some extent, some of them are still being carried but the majority were turned over to the State Aid as soon as their identity could be established. In addition to the help given these families innumerable letters have been written for both men and women who could not make themselves understood either from lack of knowledge of the English language or because of ignorance of the proper authorities to whom to appeal for assistance or advice. Several benevolent people in the city have also assumed the responsibility of individual families until State Aid could be obtained. Prompted by the same spirit of helpfulness and duty the managers of some of the day nurseries have agreed to take, free of charge, the children of any mother who has to go to work because so left. These good people would have been quite overwhelmed had not the many claims for exemption because of dependent families been granted.

There is another big problem to be met perhaps more difficult still. As many of our women work in the mills from choice as from necessity, they are not a home-loving people. Domestic duties and the care of their children soon become monotonous and they long to "get back into the mills where there is something going on." Now when the wages are higher than they were ever known to be, with few exceptions, every man, woman and child is anxious to go to work. Fortunately some have already established the habit of saving, and are adding to bank accounts with views of future small farms. There are altogether too many however who are acquiring habits of extravagant luxury much to be deplored.

Who is to teach the children who go into the mills at 14 years of age any knowledge of home-making? How are they to acquire the knowledge to care for their children when the time comes for them to assume this responsibility? We know from long experience that "mother instinct" does not supply the lack as some of our sentimental friends like us to believe. Little by little the gospel of health is being spread. The better care of babies is being taught at the hospital outpatient departments and the various baby conferences. What is most needed, and particularly now when so many of the mothers are going

to work in the mills, is for a few fundamental laws governing the health of babies and young children to be brought to the attention of the school children in a forcible manner. Boys as well as girls of 12 to 14 years should be included in these classes. Then perhaps the number of babies made ill by sharing the bananas and other goodies of the big brothers would be somewhat diminished; and many a mother can be taught through the child who cannot otherwise be reached.

Within the past few years Fall River, like other cities, has made considerable progress along health lines. The Union Hospital not only continues its general medical, surgical and obstetrical work but now has a steadily growing prenatal clinic and beds for about 25 babies as well as a dental clinic, and an active Social Service Department. The City Hospital also is able to take 19 or 20 babies and is contemplating opening a prenatal clinic in the near future. The District Nursing Association, which was started by the trustees of the Union Hospital and which is still very closely connected with it, does the general bedside nursing, including obstetrics and prenatal work in the homes of the people of Fall River.

The Metropolitan Life Insurance Company is a great factor in making the connection between the nurses and the people who need their services. Most of the mills of the city pay the Association for caring for their employees or members of their families in times of illness, and in spite of the demands made upon them at this time they have not curtailed their contributions in this line. In addition to the home nursing and instruction given by the staff, this Association also maintains six clinics throughout the city for babies and children through school age, so that no day during the week passes that advice may not be obtained if desired, or needy cases may apply at the City Dispensaries for treatment, or for a doctor to come to their homes. The city also has a dental clinic for children and furnishes medical supervision in the schools. When the parents fail to take advantage of the advice given by the school doctors the children are referred to the District Nursing Association and the nurses visit the homes to explain and advise regarding treatment. The Association also maintains the social settlement work which not only supervises the recreation of the young people but makes a great contribution by teaching cooking and home-making to small groups.

All this is carried on at all times but no department in either public or private organizations but feels the need of more intensive work during the time of war.

A MATERNITY AND INFANT WELFARE PROGRAM FOR THE UNITED STATES

J. H. LARSON, Secretary Committee for the Reduction of Infant Mortality of the New York Milk Committee

"London, May 8, 1917.—England will shortly add another ministry to its 'win-the-war' government—a ministry of health.

"'One of England's greatest needs today is the formation of such a ministry,' Lord Rhondda, chairman of the Local Government Board, told the United Press today. 'Fifty thousand babies alone can be saved to the country through its control. Under the present system there is a large amount of overlapping in governmental work, leading to friction, unnecessary expense and waste of energy.

"'I estimate that one national bill alone, enforcing government supervision of maternity and infant welfare, will save fifty thousand young lives a year. Such a bill will be introduced at an early date!'"

"A German Dispatch via Copenhagen, May 27, 1917.—The decrease in births was accompanied by a corresponding fall in the death rate of infants under one year old, which was 13.3 per cent. per hundred births, but this has not diminished the anxiety of the sociological experts, who are holding congresses to awaken popular interest in this menace to Germany's future. The Government is devoting intensive study to the repopulation problem through commissions attached to the Minister of the Interior and shortly will introduce legislation in the Reichstag to counteract the nation's falling rate of growth by measures calculated to stimulate the birth rate and lower infant mortality."

Major Edward Rist of France is now in this country to acquaint himself as to what is being done here by public and private agencies in the way of life and health conservation. From this it appears that after three years of war, Great Britain, France and Germany, as well as other warring nations, are realizing the necessity of conserving its potential citizenship of the future. These nations hope that by intensive methods of maternal, infant and child conservation, enough lives can be saved above those saved by ordinary methods in times of peace to replace in a few years the man power lost because of the war.

Such tardy recognition of a necessity of this magnitude should not be permitted in the United States if we are to survive the termination of the present conflict to our best national advantage. It behooves us at this time, when we are drafting our young manhood into actual military service, to take immediate steps in formulating and inaugurating a national program working towards conserving our man power of the future. A program of this kind should include:

1. Prenatal nursing and maternity clinic service coordinated with the highest standard of obstetrical service obtainable.
2. Nursing care for mother and child during confinement with rigid observation of rules and conduct prescribed by our highest medical authorities.
3. See that every birth is officially reported to the proper authorities.
4. Home visiting and clinical supervision by physician and nurse of mother and child, for one month after confinement with frequent and thorough physical examinations.
5. Registering the mother and child at a babies' milk station or clinic with home visiting when necessary until the child is two years of age.
6. Nursing and medical supervision of child during its pre-school age.
7. Making available to all children of school age physical examination and medical supervision.
8. Strengthen, rather than relax, our child labor laws and insisting upon a definite mental and physical standard with satisfactorily completed school work before working papers are issued.

This is a program of no mean proportions. In many places in this country where infant and child welfare activities have not been undertaken by either private or public initiative, it will require a great deal of time and effort for organization, equipment, and getting the work under way. In other centers, such as the large cities in which the last decade has shown tremendous progress in preventive effort along these lines, the work will be comparatively simple. In New York City, for instance, the milk stations, public and private, cover nearly all the areas where reside mothers whose infants need milk station supervision. Similar activities provide care in a large measure, though not adequately, for children of preschool age. The public school inspection is thorough and complete. Physical examination of school children by the Department of Health is of a high standard and effective. The child labor laws are enforced and public sentiment has so far prevented commercial greed from being successful in its attempt to relax these laws through legislation.

In the list enumerated, the most significant items and those deserving of the highest character of intensive effort are those which have for their objective the prevention of unnecessary loss of maternal and infant life, and it is for such a program that a national plan of action is here proposed. It has been pointed out by the Children's Bureau at Washington that maternal deaths from causes due to pregnancy and confinement in the United States are exceeded only by deaths from tuberculosis. Among the so-called progressive nations of

the world, the United States ranks 14th in its annual loss of mothers from causes due to pregnancy and confinement. This fact is rather disconcerting when it is pointed out that the total number of nations included in this group is only 16. The maternal death rates per 100,000 of the general population ranges from the maximum of 19.6 for Spain (U. S., 14.9) down to 6.0 for Sweden. In order to help formulate an intelligent program for preventing unnecessary loss of maternal life in this country, it may be well to inquire why it is that our maternal mortality is two and one-half times that of the lowest country on the list. What are the fundamental steps in maternal conservation which are recognized and practiced in Sweden and obviously unrecognized, and certainly neglected, in the United States?

In the first place, Sweden is thorough in her morbidity and mortality book-keeping. Her vital statistics—that most effective yardstick by which to measure a nation's health and general well-being—is the oldest of any country, so it may well be that at some time in the past the statistical evidence pointed an accusing finger at her health officials and demanded that action be taken to conserve the precious lives of mothers and babies. The morale of the physicians is high and instruments are not used in delivery except as a last resort in abnormal cases.

All midwives must be high school graduates and receive a thorough training in obstetrics extending over a period of two to three years. After obtaining their license, they are re-examined periodically and cannot continue to practice unless they pass these re-examinations.

That this training of the doctors and midwives is thorough in practice as well as in theory is borne out by the statistical evidence. According to maternal mortality tabulations by Dr. Meigs of the Federal Children's Bureau, the Swedish maternal death rate from child-bed fever (infection caused by carelessness on the part of physician or midwife attending the confinement) was also the lowest of the 16 countries enumerated. It is considered a grave reflection for any doctor or midwife to have a case of child-bed fever in his or her practice and this disgrace is keenly felt.

Every county has its own doctors and midwives paid by the Government to care for all poor mothers during pregnancy and confinement.

Punishment is very severe for the conviction of the crime of inducing abortion.

Expectant mothers are registered and given prenatal instructions and care by the doctors and midwives.

Expectant mothers must stop work two weeks before confinement and are not permitted to start work again until six weeks after confinement.

This, in extreme brevity, sets forth the steps of precaution taken by the profession and officials in Sweden—and that, by implication, at least, are neglected here.

The national problem confronting us in considering a preventive program of this kind cannot be stated with statistical accuracy. From our census and vital statistics however, it is at least possible to get an approximate idea of its magnitude.

Out of every 1,000 pregnant mothers in New York City in 1916, 5 died from causes due to pregnancy and confinement, 43 gave birth to stillborn infants and 35 lost their babies through death during the first month after birth. Of the 18,000 potential lives that did not survive till the end of the first year after birth, over one-third were born dead, nearly one-third died during the first month after birth, and one-third during the remaining 11 months of the first year. This means that two-thirds of this sacrifice took place during the utero gestation period and during the first month after birth.

A very conservative estimate may place the annual number of pregnancies in the United States at 2,650,000. Out of this number 15,000 of these mothers will lose their lives from causes due to pregnancy and confinement; 150,000 will give birth to dead babies, another 115,000 will lose their babies through death during the first month after confinement. This is an annual loss of 280,000 lives which is a direct annual tax upon the business of American motherhood. That in brief is our national problem.

Given a practical program what can we hope to accomplish in the way of minimizing this loss? It has been conclusively demonstrated that stillbirths can be reduced 22 per cent. and deaths under one month 28 per cent. Out of a total of 3,145 expectant mothers under the care of the New York Milk Committee, only five or 1.5 per 1,000 mothers died. The maternity death rate throughout New York City was three

times the rate that this experiment in prenatal care attained. And among the sixteen leading countries of the world the maternity death rate per 100,000 population ranges from 6.0 to 19.6. In this list the United States ranks fourteenth with a rate of 14.9.

That the above percentage reductions are far from impossible has been proven by the statistical evidence of organizations which have worked along these lines. Their general attainment requires only that intelligent conservative prenatal, obstetrical and infant care effort during the utero-gestation period and the first month after birth be extended to all the mothers and babies in need of this care. National application of these possible reductions means saving 10,000 of the present toll of 15,000 mothers. It means preventing 33,000 out of the 150,000 stillbirths. It means preventing 32,000 of the 115,000 deaths under one month. Out of the present sacrifice, then, of 280,000 we should be able to salvage at least 75,000 lives.

Though it may sound utopian, this estimate is really very conservative. It exceeds Lord Rhondda's estimate numerically only. His proposed saving of 50,000 lives is out of a population of less than 50,000,000, while our proposed saving of 75,000 is out of a population of more than 100,000,000. And it can be done—if the public in general and the medical profession in particular will remember that an infant is nine months old when it is born, and that it needs expert care during this period even more than it does after birth. All of our eminent pediatricists are agreed that frequent and thorough physical examinations during the first month after birth will discover and prevent a large number of the ailments which cause deaths of infants during the period immediately following birth.

In many communities there are now milk stations and other baby welfare agencies organized to prevent baby deaths, but very few babies are enrolled at such stations until after they are one month of age. (In New York City the average age of babies when registered at milk stations is $3\frac{1}{2}$ months.) Furthermore—these activities are very largely limited in scope to feeding problems, and are therefore comparatively simple, due, as is shown above, to the fact that only one-third of these potential baby lives survive until the milk station age is reached. The more difficult problem of conservation, as well as the more important, is to inaugurate a program which will, in a meas-

ure, prevent the unnecessary sacrifice that is now taking place during the utero-gestation period and the first month after birth.

To provide adequate maternity care for that large group of mothers in which the milk station is especially interested requires practically only the co-ordination of existing agencies to make this service available. Prenatal conditions, however, have no respect for class or financial position so that it will be necessary, through propaganda and education, to get every expectant mother interested in herself and the future welfare of her infant. The great middle class of the population is the backbone of this or any other nation. It is a notorious fact that it is only the very poor and the very rich that can get the best medical service available—the poor because they can get this service free—the rich because they can pay for this service, not only for themselves but for the poor as well. The average home, however, can afford only the average medical talent, and it is here that the greatest future progress lies in a campaign of this kind. But even among these it is going to be a comparatively simple matter in large centers of population because agitation along these lines has been under way for a number of years. Even here, as well as in all outlying districts, the necessity of carrying the message of mother and child conservation into every home through intensive organization is imperative.

Our country is now definitely committed to a policy of forcibly resisting aggression against democracy. The future of the United States, as well as the other warring nations, lies in the babies that are born today. Baby saving abroad has become almost as serious a problem as the war itself. It is more urgent now than ever before that all our efforts to prevent unnecessary loss of infant and maternal life be extended and intensified. The future has its need for the child of today, in the home, on the farm, in the workshop, the office and various marts of trade. We, as a nation, owe to those of our young manhood who gladly will sacrifice their lives on the field of battle, the rearing of sturdy successors to carry on their abandoned work of times of peace.

In order to accomplish this we must inaugurate a comprehensive national program to make the experience and knowledge we already have in prenatal care available to every expectant mother in the nation. and nursing care to all babies until they are one month old when they can be registered at milk stations or other baby welfare agencies.

Nothing has been said of our present standard of obstetrical practice. We all know that, as a national proposition, this practice is far inferior to what it should be. However, it is a demonstrated fact that prenatal care and supervision alone automatically raises the standard of obstetrical practice both among the physicians and the midwives. Though we should urge standardization of training along these lines in all the medical colleges, hospitals, and schools for midwives, the program proposed will in itself make this work more efficient among the general practitioners of obstetrics.

SUMMARY

A NATIONAL PROGRAM OF MATERNITY AND INFANT WELFARE

1. PURPOSE

- a. Prevent unnecessary maternal deaths from causes due to pregnancy and confinement.
- b. Prevent unnecessary death and sickness in early infancy.
- c. Prevent unnecessary still and premature births.
- d. Conserve the health of the mother and thus reduce invalidism.
- e. Promote intelligent motherhood and maternal nursing.
- f. To place all babies under the influence of milk station or other baby welfare agency as early as possible.

2. SCOPE AND CHARACTER

- a. Registration of expectant mothers as early in pregnancy as possible.
- b. Mothers to remain under active supervision and care until one month after confinement.
- c. Expectant mothers should be urged to attend a maternity clinic every two weeks up to the eighth month and every week thereafter.
- d. If after being visited by the visiting nurse the mother fails to report to the clinic, she should be visited in her home by the physician in charge of the clinic.
- e. Every patient should bring a specimen of urine for examination at each visit.
- f. Every patient should be given a copy of "Instructions to Expectant Mothers," or a copy of "Prenatal Care," published by the Children's Bureau.
- g. Complete record of services rendered and care given each mother should be maintained by use of uniform prenatal history card and physical examination card.
- h. Provide instruction in hygiene of pregnancy and the care of the new born infant.
 - i. Provide special medical care and supervision for all abnormal cases.
 - j. Provide adequate care at confinement.
- k. Provide through the coordination of all agencies interested any other care or help that the mother or her family may require.
- l. Provide a clinic where doctors and midwives may bring their cases and get expert advice.

3. ORGANIZATION*

- a. A small National Committee organized as a Sub-Committee of the Federal Council of National Defense, with headquarters at Washington, D. C. This Committee to be responsible for inaugurating a National Program on Maternity and Infant Welfare
- b. To duplicate this National Committee in each state in the Union, each state committee being a sub-committee of the National Committee.
- c. Each state committee to appoint as many sub-committees as are necessary to extend the work adequately into every community in the state.
- d. Communities should be divided into zones with a central registration office, where should be registered all expectant mothers receiving maternity care by the various hospitals and organizations in that zone.
- e. Each such central registration office should report according to uniform tabulations the essential statistics of its work.
- f. These reports to be sent to the central office of the state and there tabulated for the state as a whole.
- g. These state reports should be sent to the national central office and there tabulated for the nation in order that we may have national statistics on this work.*

*The foregoing recommendations are submitted by the author and do not represent recommendations of the Association.

THE HOME SERVICE INSTITUTES OF THE AMERICAN RED CROSS

**Synopsis of an Address by J. W. MAGRUDER, Ph. D., Potomac Division Director
of Civilian Relief, American Red Cross***

If I were to take a text, it would be from the Biblical description of the Last Judgment, where the King upon the throne is quoted as saying to those on his left hand, "Depart ye cursed; for I was an hungered and ye gave me no meat, I was athirst and ye gave me no drink, naked and ye clothed me not, sick and in prison and ye visited me not;" and then in answer to their question, "When?" He adds, "Inasmuch as ye have done it not unto one of the least of these, ye have done it not unto me."

In other words, in the final judgment of the world, nations as well as individuals will stand or fall by their treatment of "the least of these," the least esteemed, the least important socially or economically or otherwise, the last and least to be thought of, the most dependent and helpless, the most needy. And among "the least of these" would certainly be the infants in arms, and especially the infants of the poor.

We are faced with a distinctively religious proposition; which, when the final verdict of history is made up, will prove to be a social proposition, a human proposition, a proposition which involves the issue of life and death in the physical as well as moral and spiritual sense, and one which finds expression in time as well as in eternity.

In the light of this socio-religious gospel, how do we stand? Especially in our treatment of infant life, what has been our record in times of peace? and what record are we making under the conditions of war?

I need not repeat the indictment against us because of our sheer neglect. We have already had set before us in this conference the facts concerning the frightful slaughter of the innocents, which even in time of peace has been a world scandal. What must it be in time of war?

Under war conditions we have, in addition to the ordinary infant death rate and disease rate, in addition to the usual morbidity and mortality, that which is superimposed as a result either of widowhood due to the death of the husband and father in the line of duty, or as a

* Dr. Magruder died April 16, 1918.

result of the domestic condition analogous to that of widowhood, growing as it does, out of the enforced separation of husband and father from the wife and children, or as a result also of the evil of out-and-out desertion for which war serves as an occasion as well as an opportunity on the part of a large group of men devoid of proper moral sense. Then there is that other evil of illegitimacy, which all experience goes to show becomes accentuated in time of war, and concerning which the nursing and medical profession is better informed even than are social workers. Each and all of such evils mean broken homes; and broken homes we know mean a rise in the rate of morbidity and mortality, the first and most numerous victims of which are little children, the "babes of the kingdom." The husband, father, brother, son, companion, advisor, the general factotum of the family, has gone; the conditions of living are correspondingly straitened and hardened; the standards of living are lowered; along with the worries and uncertainties there is poorer food, poorer clothing, poorer housing, poorer everything, besides the loss outright of not a few of the things which under normal conditions go to make up the total of living as distinguished from mere existence.

What, now, is being done in behalf of "the least of these?"

In the first place, there are people blind to facts, who see nothing to be done except to put money into the hands of the families of these little ones. Has not the bread-winner been snatched away? And is it not, therefore, merely a question of income sufficient to make up the amount which the bread-winner hitherto has provided? Just as if the husband and father, the man of the family, were a machine for making money and putting it into the family coffer, and nothing more! Just as if the members of his family were nothing but stomachs to be filled and backs to be clothed and heads to be sheltered!

The fact is that the money need, indispensable though money be, is relatively the least part of it, even for "the least of these." And you who are nurses, particularly those of you who are actively interested in the social service phase of your vocation, such as is illustrated in the social service departments of hospitals and in the medical and social work of the growing number of community agencies, know full well that it is far more than merely an economic question; it is a social question, a matter of human service. It goes back to the family as the social unit and becomes an all-round family problem.

Speaking now for the Red Cross and responding to your request that I indicate what it is doing in behalf of families and, therefore, for the prevention of infant morbidity and mortality, I am glad to be able to report a definite program as mapped out by the Department of Civilian Relief and covering the entire United States, also, as far as may be, large areas of population even among our Allies. It is a program of Home Service, one which is being administered specifically through the Home Service Section or Civilian Relief Committee prescribed for every Red Cross Chapter. Up to date there are more than 2,700 chapters, with the number still rapidly multiplying. It is the duty of each chapter chairman to appoint carefully selected men and women as Home Service workers. Unfortunately, despite the fact that this country is in important respects the most highly socialized of any in the world, there are relatively few communities as yet with many trained and experienced and competent social workers, if any at all; and even in the most favored communities, there are not nearly enough such workers to go round, especially under conditions of war. This shortage, of course, is not peculiar to social workers but is equally true of nurses and physicians.

In order to meet the serious need in the Red Cross world, particularly of competent Executive Secretaries of Civilian Relief Committees, institutes for the training of Home Service workers have been established. There are twenty-five such Red Cross Institutes at strategic centers in various parts of the United States.

Supplementing these Institutes, there are to be chapter courses of lectures and study for the benefit of seriously minded persons who either could not get away from home to attend an Institute or would not be justified in so doing, and yet are anxious to qualify themselves for intelligent Home Service by coming to a knowledge of the principles and methods to be observed. These Chapter Courses are outlined in a pamphlet, A. R. C. 206, entitled "Chapter Courses in Home Service."

For the Institutes there is an extended "Syllabus of Instruction for Home Service" (A. R. C. 205), which, while it secures unity and fixes standards, allows for variety of treatment to meet the conditions and needs in different parts of the country. One part of the Syllabus is devoted to the consideration of the life and work of women, and especially as affecting children yet unborn and infants in arms.

Indeed, special attention is being given to this subject; and one of the last remarks which the Director-General of Civilian Relief, Mr. Persons, made to me on my departure for Richmond was, "Do not fail to emphasize the fact that in the Department of Civilian Relief of the American Red Cross, we regard our duty to the children and to infants in arms and unborn as fundamental and, therefore, foremost; and assure the American Association for Study and Prevention of Infant Mortality that we desire to co-operate with them to the limit of our power in conserving this part of the life of the nation."

Now I understand that I am to be followed by one who will explain more in detail what these Institutes are proposing to do in intensive work for six weeks for students. The work will include five hours of lectures each week, supplemented by prescribed readings, and twenty-five hours of field work each week under the supervision of trained and experienced workers; thereby bringing the students into active contact with all community agencies, particularly those having to do with public health and with the welfare of children and infants.

If, under the impetus and necessity of war, we in the Civilian Relief Committees through their Home Service Sections and in Red Cross Institutes and in Chapter Courses, arouse a new and hitherto unawakened group of American men and women to a sense of their obligation to the women of the nation, to the children of the nation, and to the babies of the nation, so that these men and women actually enter into the spirit of Home Service and give their lives to it, may we not expect that out of it there may come a conservation of life such as we have never dreamed of before? And that as a net result and compensation even for this intolerable war, we may find ourselves hastening forward to establish new and higher standards of life and living? so that when the verdict of history is made up, we may be able to say that we have done vastly more than we were doing before war broke upon us in ministering in things vital to "the least of these" in our communities, and that in so doing we have done it "unto Him."

DISCUSSION

The Chairman: I am sure we are all very grateful to Dr. Magruder for this splendid presentation of the work being done by the American Red Cross. Dr. Henry H. Hibbs, Jr., of the School of Social Work and Public Health has been good enough to say he will tell us just what is being done here in Richmond.

Dr. Henry H. Hibbs, Jr., Director of the School of Social Work and Public Health, Richmond, Va.: Everyone is acquainted with the work of military relief of the Red Cross—provision of sweaters and knitted articles, surgical dressings, and hospital supplies, ambulance units and base hospitals. All know of the work among the devastated towns of France—what it is doing to keep up the morale of the soldiers of our Allies by coming to the relief of their families when they are in distress. Most of us know of the relief work of the Red Cross here at home when disasters come—the sinking of the *Lusitania*, the Cherry Hill mine disaster, the Ohio floods, tornadoes, fires and explosions.

But the work of the Red Cross for the families of our own soldiers and sailors—Home Service work as it is called—is not so well known. This is because this phase of Red Cross work is the newest.

Each chapter of the American Red Cross is now being instructed to organize a Home Service section to assist families to cope with difficulties which the stress and strain of the war and the absence of a husband, son or brother has thrust upon them. Wives may be inexperienced in business affairs or burdened with anxiety or worry about the children. The mother may be lonely and need protection. Brothers or sisters may have become wayward and irregular in school since the older brother went away. Aged parents may be lonely and helpless. Additional opportunities for recreation may be needed to compensate for the loss of the absent one and for worry about home problems and what the war may bring forth. Relief may also be needed to supplement government allowances. But the absent soldier was more than a breadwinner and contributed more than material things to the home. In such cases the Red Cross may, if its services are acceptable, send a friend to the family to partly take the soldier's or sailor's place.

Home Service sections must also be prepared to give accurate and complete information to families of soldiers and sailors; how mail should be addressed and packages wrapped and mailed; how information may be obtained of those sick, wounded, captured or missing; what the War Risk Insurance Law means; how to get allowances, allotments and compensation. This is helping as truly as giving families aid when sick or in want, for it will save untold anxiety and suffering and quite needless fears.

The relation of this work to the efficiency of the Army and Navy is a close and important one. All military leaders emphasize the importance of keeping up the morale of the fighting forces. Home Service work does just this. As the Director of Civilian Relief of the Potomac Division has stated:

"Soldiers have bodies that get cold, therefore they need sweaters; they get hurt or sick, therefore they need surgical dressings and nurses; but they have also minds and hearts that center on the folks back home; they become anxious and discouraged about the welfare of wives, children, mothers, brothers, sisters. *'A worried soldier is a poor soldier,'* says General Pershing. It's up to the Red Cross to keep up the morale of the men by protecting and aiding their families."

Finally, many of the soldiers who return will be broken in body by wounds, sight gone in some cases, and mind and nerves shattered by shell shock in others. To care for these broken men, to build them up physically, to overcome the deep-seated discouragement in which they will be plunged will be a task in which the Red Cross Home Service workers will be prepared to help.

But to render genuine help to wounded and discouraged soldiers requires tact and skill as well as sympathy. The worker who is to render effective service to soldiers' families must also be trained for her work. Information must be given accurately and clearly. Such relief as may be given must be administered—especially to soldiers' families—with tact and with a clear comprehension of just what is needed. Friendly services of all kinds must be rendered efficiently. This can be given only by those who know how. Wise and tactful effort will be necessary in many families if the soldier is to find his family as well off when he returns as when he went away.

To meet the present need for Home Service workers and to prepare for the greater need that will come later the Red Cross has established a series of Home Service Institutes over the country. One of these is at the School of Social Work and Public Health in Richmond. This institute will be planned primarily to serve the states of Virginia and North Carolina.

The course of study will last six weeks and will consist of from four to five hours of lectures a week and about twenty-five hours of field work. The first institute in Richmond will begin on November 5 and the second will begin on April 8.

Dr. Magruder: Let me make a brief supplementary statement. There is such a perfect analogy between medical case work and social case work that we so-called social workers feel that we have more in common with you than with any other group of workers outside of our own vocation. We encounter precisely the same things that I hear you mention as being encountered in your own work; and just as we on our part are eager for every opportunity to back you in encouraging people under medical training to avail themselves of your professional courses and the facilities of clinics and dispensaries as well as hospitals in order to qualify themselves for the work of diagnosis and treatment, so must we depend upon you to use your good influence towards inducing people to put themselves through an analogous course for training in social diagnosis and treatment as provided in Red Cross Institutes and Chapter Course and supervised field work.

Here is what we encounter: a tendency upon the part of newly awakened people who have become aroused to a social interest and responsibility, to revert to discredited means and methods of doing case work rather than to profit by the mistakes and disastrous results of the past and follow the more excellent way. "Why," they say, "the man of the house has gone off and left the family. Therefore, is it not the best thing for the mother, and for the children too, if possible, to go to work? Or, if the children are too young, let the mother go to work and leave the oldest of the children at home to play mother to the little ones. Or, have the children go to institutions while the

mother goes out to work." In fact they propose a plan of treatment which means the disintegration of the family. And what does it mean to the morale of the man absent in the service of his country when he hears from home. And, worse still, what will it mean to the man upon the day of his return home.

We have an entirely new group to deal with, to educate and to re-educate. We have a reactionary tendency to offset, and we need your good strong seconding in behalf of the training courses for Home Service as offered. We shall appreciate your support, and assure you on our part that we shall be only glad to reciprocate in every way in behalf of proper training for medical work.

The Chairman: We are very grateful to those who have taken part in this session, and I know the public health nurses and the nurses doing prenatal and infant welfare work appreciate greatly the co-operation of other agencies in helping them with many problems which must be solved and met if we are to accomplish anything in the welfare of either the child or the mother, and probably after Dr. Magruder's presentation of what the Red Cross is going to do we may be able to hope for more help than we have ever had before.

A word here about volunteer workers. For some years we have had volunteer workers in our Chicago Infant Welfare Society. They come from our Women's Auxiliary, which is organized in groups, and each group is assigned to one of our centers. The aim is for the group to assume the financial responsibility of the station, and also to help in whatever way they can both at the station and in the families where they may need temporary relief; for instance in emergencies where milk may need to be furnished for a short period. These young women have come to the various centers and assisted the nurses at the time of the conference, weighing the babies, helping with the clerical work, and making themselves generally useful, getting acquainted with the mothers, and looking after their comfort. In a few instances this has been very satisfactory, the volunteers have attended regularly, but it has not been as well organized as we would like to have it, and with the first of the coming month one of the volunteer workers, a young woman who has become much interested and has had good preparation and has real ability, has volunteered to direct this group and see what she can do to make them see the importance of regular work. She will also bring them together once or twice a month for some instruction. We feel that the help from this arrangement is mutual; that we are getting great assistance from these women and also can give them a great deal. I never speak of this question of what we may give these young women, but I think of Professor Henderson—who at one time was president of this Association—and who said to me on one occasion that he should not feel we had accomplished the things he had in his mind until we had succeeded in bringing young women who had just finished their school or college training, to where we could teach them the better care of the child. We hope that through having a leader of their own these workers of ours will receive this benefit, and I hope, perhaps at our meeting next year, we may be able to report very different results.

PROPAGANDA

Monday, October 15, 1917

COMMITTEE

MR. GEORGE R. BEDINGER, Detroit, Chairman
DR. J. HERBERT YOUNG, Boston, Secretary
DR. S. JOSEPHINE BAKER, New York City
MR. EDWIN D. SOLENBERGER, Philadelphia

SUBJECTS

Follow-Up Work by the Wisconsin Committee

Making Publicity Pay

**Definite War Programs for the Prevention of Infant Mortality, Suggesting
Methods of Procedure for Rural Communities as Well as for Large
Cities**

Cincinnati Unit Plan

MAKING PUBLICITY PAY

JOSEPHINE J. ESCHENBRENNER

Membership Secretary, National Child Labor Committee, New York City

A friend of mine, for many years active in social work and especially in interesting the public in it, has changed the old adage, "Let not thy left hand know what thy right hand doeth," into this slogan for his organization: "Do all the good you can to all the people you can, and let everybody know it." I like to go him one better and add: "Do all the good you can to all the people you can, let everybody know it, *and get everybody to help.*" When I have reached people through my publicity, have told them of the cause with which I am dealing and the way it can be reached, I want them not only to say, "It's a good work," I want them inspired *to do something to help* in the remedy. I want to develop in them the same spirit to action which prompts you to buy Postum "because there's a reason," or O'Sullivan's rubber heels "to soothe your spine." In other words I want to "hang my harp in the wind."

It would be presumptuous for one who, though sympathetic, has never been actively connected with any phase of the work of the American Association for Study and Prevention of Infant Mortality, to attempt to suggest to your body ways and means of raising funds for your work. I justify my courage in submitting to the persuasion of the chairman of your Committee on Propaganda to come to tell you about some methods of publicity, because like Chaucer's poor parson who had to preach the Ten Commandments, I have first practised them myself.

Nor would I advocate your duplicating the methods we in the National Child Labor Committee have tried and not found wanting. First, because the foundation of our respective appeals is different; second, because the requirements of each work are different, and where our plan has met with favor and success for our work, it may leave much to be wished for if applied to yours; third, because I believe it does not pay for one organization to adopt the methods of another. Duplication means losing the novelty of the plan, and with that goes a big measure of results in success.

It is idle comfort to feel that general propaganda, exhibits, newspaper publicity, leaflets and speeches are developing public interest, if the public is only excited into weeping; quite as idle a comfort

as a man I know takes in the present war because it is increasing our knowledge of geography abroad.

I would not imply that direct money returns is the only principle at stake in publicity methods. I *do feel* that if the publicity is developed by an organization depending for its support on voluntary contributions, publicity and financial support should balance. Without one you cannot get the larger measure of the other. There is a gold mine for every worthwhile organization, it contains the type of gold that particular organization needs—whether it be in public and individual action to bring about required conditions, either by legislation, improvement of social conditions, etc., or in money help, or both. What the organization needs is transportation facilities to get into the mine.

In the thirteen years I have been connected with the National Child Labor Committee, we have found that a good method of securing popular support in money as well as in action for bettering local conditions of child labor and working for needed legislation, is to combine in one community for a short period, never exceeding a week:

- (1) Good advance newspaper publicity,
- (2) A temporary organization of local leaders,
- (3) Announcement in the churches and schools,
- (4) Arousing of local interest, through an exhibit,
- (5) Attendance of school children and the general public at the exhibit,
- (6) Special meetings, and
- (7) The appeal for help in contributions and such personal action as our work may require at that time, be it on behalf of local, state or national legislation, or enforcement of already existing legislation.

We have proved what analysis of business methods is said to have proved: That leaving a sample of your product at the door will result in one per cent. of sales; combining the package with a sales talk to the housewife sells three per cent., and distributing your sample through the grocer who knows his customers and how best to approach them, sells ten per cent. Our important factor has been our local committee members. Filled with interest and information, they help our representative reach out to their friends, and these in turn give the same ready response.

In other words we have made use of that big factor in sales talk :
THE PERSONAL EQUATION.

It seems to me that the American Association for Study and Prevention of Infant Mortality is already unusually well favored with this same element. The many hundred cities and towns in the United States which have so readily responded to observing Baby Week in the few short years the idea has been in operation, and the hundreds of other localities which are near to, or can easily be made to understand the advantage in observing Baby Week, I believe are the transportation facilities to the gold in your mine.

These places have developed *interest* through the press and their meetings, the *object lesson* through the exhibits they show and the actual demonstration, the *proof that the plan is good* through the improvement in their own local babies. It is your opportunity to show them the next step; that *this* they should have done and not let the other undone. That no locality lives unto itself alone. That the nation is as strong as its weakest members. That it is their opportunity to hold out a hand to other American babies—as they have done to the French orphans, to the Belgian babies, to the Armenians and the Russians, the Lithuanians and the Roumanians, the Irish and the Jews. Even more than that: That in this grave hour of the world's war help for the American baby is a needed Home Defense measure.

Show them we cannot limit Home Defense to drill and the manual of arms. A nation's power lies in her people to whom she has given a chance to be born, to be well born, and the right to grow up, to be happy, to become useful members of society, to be *human beings*. "Refuse that chance to come and all must suffer. As one of the signers of the Declaration of Independence put it—if we don't hang together we'll all hang separately."

This dark epoch of strife among nations, I believe has already brought light into many blind minds who ignored the possibilities of war and the needs of peace; who had persuaded themselves that the social, industrial, political problems we find as difficult were not really urgent. The appeal of the war and suffering has opened their hearts to oversubscribing the \$100,000,000 fund sought by the Red Cross, to oversubscribing the two billion dollars for the first Liberty Bond and into undertaking a new five billion dollar Liberty Bond issue.

Pressing needs of direct war charities are making huge demands upon purses. But giving is largely a matter of education and these war charities have helped teach many how to give. There is always truth in the legend of the widow's cruse. I have no fear that war charities will reduce support to local needs. It is true, local philanthropists will be put more to the acid test. We must show our needs. We must show that we make good. Not lacking in these, help will be added unto us. We shall not find slackers.

It seems to me that your Association has an unusual opportunity. Quoting another's thought: "In the midst of almost universal activity toward death, it is your privilege to show courage, energy and enthusiasm for all that tends to enrich life." You can show that *you too wear khaki*. Your patriotic move is to point to the lessons England, France, Germany are taking out of their experience in the war in connection with the prevention of infant mortality. You can show what it means to our nation to have 250,000 of its potential future soldiers of war and soldiers of industry and production, die before they are one year old. But beyond all this, you can help point out the lesson of the poet of democracy, who while musing on these warlike days and of peace to come, thus summed up his faith in the future:

"Produce great persons; the rest follows."

DISCUSSION

The Chairman: Miss Eschenbrenner has not told you that the National Child Labor Committee has to raise \$71,000 a year, and has no endowment. That shows you what the person who knows the right kind of publicity and has the ability to present the message in such a way that people will be glad to give their support, can do.

This Association—any Association like this—holds a convention not only to discuss with its members and guests certain phases of its own problems but it has also for one of its main objects that there shall be some permanent result in the community where the convention has been held. Last year a special committee for definite follow-up work was appointed, and the committee worked hard and gave a very elaborate and detailed report to the members of the Board of Directors.

We are fortunate in having with us a member of that committee. The committee did such excellent work, and established such a valuable precedent for future committees in places where we shall meet that we asked Dr. Dorothy Reed Mendenhall, of the University of Wisconsin, to outline briefly to us, today, the definite plans which the people in Wisconsin are following, so that this message can become state wide propaganda and really bear results. I have great pleasure in introducing Dr. Mendenhall.

REPORT ON FOLLOW-UP WORK BY WISCONSIN COMMITTEE
DOROTHY REED MENDENHALL, M. D., Madison, Wisconsin

I have been asked to give in the place of Dr. Gurney Taylor, now in Government service, a brief report on the follow-up work in Wisconsin during the past year.

At a meeting of the Committee for this purpose last fall it was decided wisest simply to extend the work already begun in the State, rather than try any more intensive development, in any one locality.

During the last five years the Wisconsin Anti-Tuberculosis Association has been the instigator and in many instances the promoter of almost all the infant welfare work done in the state. The State Board of Health and the Extension Division of the University of Wisconsin have co-operated and developed certain lines suggested by the Association, which is in reality our great private public health organization, whose mission is to arouse the public to the need of health protection.

In Wisconsin, as everywhere else, the visiting nurse has proved herself the most effective agent for reducing infant mortality and the development of a public health nursing service throughout the state, has been the consistent policy of Dr. Hoyt E. Dearholt, the untiring Executive Secretary of the Wisconsin Anti-Tuberculosis Association. In a state which is 60 per cent. rural, and which possesses only one large city, the problems connected with rural communities are naturally the most urgent and the most difficult of solution.

As early as 1913 the Wisconsin Anti-Tuberculosis Association took the first definite steps toward establishing an organized agency for the reduction of infant mortality and the promotion of public health in the rural districts of Wisconsin, by securing the enactment by the State Legislature of a law authorizing the employment of public health nurses by county supervisors. It speaks for the lack of general understanding of the problems of public health in our state, to have to admit that after considerable agitation throughout the state to popularize the county nurse idea, we have now rural visiting nurses in only five counties, two of them being part of the anti-tuberculosis service and not county supported. We have 72 counties in all, and vigorous propaganda has resulted so far in the favorable action of but five

county boards! In each instance the nurse is employed for general work, including school inspection and home visiting, in both small towns and farming districts. Campaigns for county nurses are now progressing in a number of counties and resolutions will be presented to several county boards at their meetings this November.

The campaign for county nurses and for infant welfare has been carried on by the Association by lectures, and as part of its motor cycle health campaign, and later of the Health Travelling Exhibit and motion picture show. The University Extension lecturers have also aided in the propaganda. Definite attempts have been made to interest the women's clubs of the state in this project, and these organizations once roused will undoubtedly become the most useful agents in getting the county in general to demand this improvement.

The slow fruition of the county nurse plan is due to the nature of our population and to the fact that the Wisconsin Anti-Tuberculosis Association felt it necessary to concentrate their efforts on two other closely allied propositions—one the campaign of arousing the small cities of the state to finance a visiting nurse as an individual project, and the other the establishment of a special course of training for public health nurses by the Association, and the placing and supervision of practically all the visiting nurses in the state. Coincident with the campaign to educate the public to the importance of health protection, the association was made to realize the need of nurses especially qualified and trained to do public health work. The majority of public health nurses in the state and available from other states were either self trained in public health work or had secured their training in connection with city work. Such nurses know little or nothing of rural conditions or rural needs. Imagine the despair of a Massachusetts trained nurse accustomed to the direction of a thoroughly organized association and with a myriad of agencies to call upon for help, put down in a small farming community in one of our upper counties with no backing, no resources, no appreciation of her services! It is indeed missionary work, and Dr. Dearholt has risen to the task of preparing the missionaries for their special field, the Wisconsin Anti-Tuberculosis Association being the organization on which they can lean and call to for help.

The Wisconsin Anti-Tuberculosis Association is now conducting special courses of training, a summer course of six weeks for nurses

already in the field and a three month's course for graduate nurses who have had no public health experience or who feel the need of the longer course of specialized work. Four courses have been given in all and the fact that their influence is not confined to Wisconsin is evidenced by the enrollment in the various classes. In the 1917 summer courses there were 18 nurses, 9 of whom are holding positions in Wisconsin, 2 in Dakota, 2 in Minnesota, 2 in Iowa, 1 in North Dakota and 2 in Michigan.

Details of infant welfare work, including prenatal care, clinical stations, and mothers' meetings are emphasized in this course, and as the result of instruction received in these classes several public health nurses have made or are making their first statistical surveys to discover the specific nature of the infant mortality problem in their communities. The work of these special courses is followed up by correspondence sent out by the association's supervising nurse and director of the course throughout the year. Assistance is given in planning and making surveys and exhibits, in publicity and in other details of the work.

As a result of these activities of the Wisconsin Anti-Tuberculosis Association we have now or had before April and the great demand for nurses for service at the front, visiting nurses in every city of any size in the state. These nurses are largely employed by school boards or by commercial concerns, they are not working in general along infant welfare lines, other than as it naturally follows in their home visiting or at the time of Baby Week celebrations in their communities.

Here we may speak of the most noticeable effect of Baby Week in our state. To me it has been the generally aroused public interest in the promotion of the health of children which has expressed itself concretely in the increase in school nurses, the general agitation for public health nurses both in town and country districts, the establishment in several of our cities of baby clinics and summer baby camps, and in statistical surveys of the state in general, and of some of our largest cities.

The last Legislature passed a second law designed to reach the rural district nursing service. This was a measure introduced by the State Health Department. This new law makes possible the hiring of community nurses by smaller units than the county, and gives

the power to employ these public health nurses to the Board of Health, health commissioner or health officer of any township, village or city. Townships, villages and cities under this enactment may join together to employ nurses jointly and divide the expense under a population basis.

Heretofore the right of health departments or health officers to employ nurses has been questioned, a fact which is responsible for the comparatively small number of general community nurses and the large number of school nurses in the state.

Other activities of the State Board of Health which bear on infant mortality have been a widespread campaign for better birth registration, the publication of excellent pamphlets on the care of the baby and the prevention of infant mortality, and the use of its agents to popularize through talks at public meetings, woman's clubs, county and state fairs, baby week meetings, etc., all measures pertaining to infant and child welfare. The usefulness and influence of our State Board of Health is widening and deepening all the time.

The educational campaigning and agitation for better public health measures of the State Board of Health and the Wisconsin Anti-Tuberculosis Association have been aided by the Extension Division of the University and the Agricultural Extension under the Smith Lever appropriation. Several rural surveys have been made and considerable literature directly bearing on the subject of prenatal care, infant mortality and infant care and the health needs of rural districts have been published by the staffs of these different agencies.

Correspondence courses on Health are part of the regular University Extension work—two are now offered on the child and one for the expectant mother and these courses are taken by women from the most distant parts of the state.

One more instance of the activity of the Wisconsin Anti-Tuberculosis Association must be mentioned. A more concrete expression of this particular phase of the association's campaign against preventable disease is found in the appointment of a State Infant Welfare Committee about a year ago, composed of four Milwaukee physicians who specialize in infant care. One express purpose of this committee is to stimulate and aid communities to establish permanent follow-up work along lines suggested by the annual Baby Week. The committee has prepared a set of baby feeding cards, the first for babies up

to eight months of age, the second for babies from eight months to one year, and the third for babies from one year to two years. The association has published 25,000 sets of these cards with the intention of having them placed by public health nurses in homes throughout the state where they will be of benefit.

The committee is also engaged in the preliminary work of its first community project. A statistical survey of Racine is being made with a view to discovering the cause of death of every baby and of every child of school age for the last nine years—state health department records prior to 1908 being so incomplete as to be practically worthless in a community study. This statistical survey will be followed by a study of existing agencies in Racine and by conferences to discover how they can be utilized and extended in the establishment of a permanent, systematic child welfare campaign. When this work is well organized, it is proposed to utilize it as a center from which the child welfare work can be extended out into the adjacent rural districts. Similar campaigns in other city centers are contemplated.

A practical suggestion which might be utilized for extending infant welfare work into rural districts through interesting patriotic women volunteers in this line of service, is found in one of the Association's recent experiences as a training agency for war emergency service. While this class was essentially a city class, the responsiveness of women to child needs is not confined to any one locality and the lesson to be found in the Milwaukee experience may easily be applied to the problem of rural health needs. Women, interested, as the Milwaukee women have been, would certainly be a splendid force to set in motion an organized campaign for the establishment of agencies with which to reach the rural districts and to supplement the work of these agencies by volunteer service of various kinds such as the transportation of children to clinics.

The public health section of the special training course for women volunteers for war emergency social service in Milwaukee, is emphasizing infant welfare work as a field in which women volunteers can be of definite value. The public health section of the training class is conducted by the Wisconsin Anti-Tuberculosis Association which is co-operating with the University of Wisconsin Extension Division in the giving of these war emergency courses, the general course being

divided into the three sections—general social service, soldiers' relief and public health.

The public health section, added as an afterthought on the suggestion of the Wisconsin Anti-Tuberculosis Association, has proved one of the most fruitful in practical results; in the first class over half of the twenty women taking this work were found capable of and willing to do regular work with organized agencies. The city health department, the out-patient department of the Infants' Hospital, Marquette Dispensary, and the Open Air School after having tried out some of the women merely as their contribution to the training of the volunteers have been so pleased with the efficiency and the adaptability of the women after their seven weeks' intensive training, lectures and field work, with the association, that they are utilizing them for field as well as for office work. Some of the women are giving several half days each week, keeping the same hours and working under the same rules as the paid professional workers. Members of the training class who have not been assigned to regular work with agencies are registered as a reserve force to be called on for occasional service along lines for which they have shown aptitude.

Through the personal initiative of members of this public health section, the Open Air School has been kept open all summer, a private fund being raised for the purpose; a picnic for crippled children was given, and there have been several automobile rides for shut-in children. Private automobiles are also used for taking sick babies to the Fresh Air Pavilion, Children's Hospital and the clinics. In fact, the interest which the women volunteers have taken in child welfare work has been significant especially as these women originally joined the training class with the single idea of engaging in some phase of specific relief work for soldiers' families. While the work is yet too young to make any detailed report of achievement possible, it has shaped itself in a way that seems to open up a large field of opportunity—the utilization of the passion for patriotic service in the conservation of human life at home.

DISCUSSION

The Chairman: There is always something very encouraging about the reports from Wisconsin. People seem to be able to get together and for the common good.

I am glad that I was asked to include in this program definite war programs, because it reminds us that we are really engaged in war work, that any delegate who would naturally come to this convention is in his own home town doing what is really very important war work. The Commonwealth of Massachusetts was one of the first to organize a definite plan of war work. Dr. Lyman A. Jones, Director of the Division of Hygiene of the Massachusetts State Department of Health, is with us, and will outline the program of the Massachusetts Committee on Child Conservation. Then we shall ask Dr. Young to speak to this question.

Dr. Lyman A. Jones, Boston: Perhaps it will not be out of place if I mention briefly one peculiarity of our health administration in Massachusetts; that is that, unlike many other states, each city or town or township as the more familiar term is, constitutes a separate unit and has supreme authority in health matters over its own community, the relation of the state department to each of these being of an advisory nature only, except in a few specific instances, such as purity of water supply, etc. So we are not in the position of being able to go into towns and carry out work there. We can carry on campaigns of education to stimulate the work, and make them see the need for various kinds of work, and encourage them to take on themselves the carrying out of these. Ever since the Board of Health was changed into the State Department of Health there has been a Division of Hygiene, and one of the duties laid on it was work in connection with child hygiene, child welfare. Since then there has been carried on constantly a campaign of education by means of lectures, child welfare exhibits, one or two things in the way of publications; many people have been reached, and many communities encouraged to employ visiting or public health nurses or public health workers of one sort or another. The Department has also had two, and now has three workers in the way of trained nurses, with hopes of eventually employing more, to carry on a survey, to determine the particular problems of the community, and hopes having found out the needs, to stimulate the community in the meeting of them. Work carried on in that way is bound to be somewhat slow, because a campaign of that kind occupies some time in leading people to see the necessity for what is being urged on them.

The Commissioner of Health appreciated the great importance of child saving, particularly in times of stress like these, and appointed the Child Conservation Committee to assist the Department and the Division of Hygiene. Three doctors were appointed from the Department and a number of outside doctors members as an advisory committee, the outside members being those specially qualified by interest or knowledge or training. The committee secured funds from private sources to pay salaries of eight child welfare supervisors, one for each of the eight health districts into which the state is divided and in which there is a state health officer. The Department itself provides funds for payment of expenses of these child welfare supervisors. The object for which they are employed is in each district to carry on a survey, and, in the cities, beginning with the larger cities, to enquire what facilities are

already available for doing child welfare work, and in what sections of the city or to what extent facilities are lacking; then making an intensive survey and looking up homes where infants have died, and interesting the community in these questions to such an extent that they will take steps to meet the problems and carry on the activities that are necessary to get results such as we are seeking.

There is one advantage which comes, perhaps, from attempting to carry on this work in conjunction with a permanent organization or department such as the State Health Department, as compared with some temporary organization set up perhaps for the period of the war, because work like this, organized or started by a temporary organization, would be apt, when the organization disbanded, to leave the workers without any body or anything to help keep it going after the war. By having it associated with the State Department of Health there will be somebody to help and encourage its future permanency and continued efficiency.

Dr. J. Herbert Young, Medical Director, Baby Hygiene Association, Boston: For the benefit of those who cannot be here tomorrow evening, it was thought advisable to present at this meeting a brief abstract of a paper to be read in the Section on Nursing and Social Work. This paper deals with the detail of the work already done in Boston.

The plan outlined by the State Committee has made it necessary for organizations in the city doing infant and maternal welfare work, to take a sort of "account of stock." This "account of stock" has been taken, and, as we naturally expected, has exposed our weak points and also made it evident to us how we could co-operate and co-ordinate our work there to better advantage.

This was done by means of a questionnaire, which was sent to the station nurses of the Baby Hygiene Association and the supervisors of the Instructive District Nursing Association, whose stations cover practically the entire city; also to heads of settlement houses. These nurses were instructed to consult with the Associated Charities and other social workers in their neighborhood so that everyone would have an opportunity to express an opinion as to the needs of the district in which they were working.

Boston is not such a large city but that probably a few of us who are familiar with the work could have given a fairly accurate estimate; but we felt in the beginning that our results would have far more weight with the committee, if we consulted not only headworkers but also fieldworkers; so we sent a questionnaire, which I will not go into here, which asked a few simple questions about prenatal care in each district, about postnatal care in each district, postnatal care for the first year of life, and postnatal care from the first year to the fifth year.

These answers came in from two different groups of nurses. The work of the Baby Hygiene Association is confined to postnatal care; part of the work of the Instructive District Nursing Association is prenatal nursing. The results were surprisingly uniform, but wherever there was a difference of opinion the difference was reconciled by personal interview. Answers were tabu-

lated by wards, because our Health Department statistics for birth rate and infant mortality rate are given by wards, and each ward at the conclusion showed birth and death rate under one year, organizations doing prenatal and postnatal work, and the needs. Dr. Jones has been good enough to bring from Boston a proof of the Public Health Bulletin which has this survey in it in detail, which I shall be glad to show to anyone interested. Also I am sure the State Department of Health would be very glad to send it to anyone who requested it.

The result of this survey is as follows—these are the final recommendations made to the Committee:

First, to inaugurate a publicity campaign, to acquaint people with the agencies working in their districts and the aims and purposes of these agencies. That, it seems to me, is very important propaganda work. A social worker recently expressed very clearly the point of view so often taken. She said: "If a business firm is trying to advertise a new brand of coffee or of biscuits, it gets the prettiest girl it can find, dresses her in an attractive costume, and puts her in the busiest part of the store, and has her *give away* samples; whereas it is unfortunately the habit with many organizations who are trying to do educational work along the lines of preventive medicine and hygiene to go into a district and calmly sit down and expect people to come to them for instruction before they know the value of the instruction given."

Second, to make arrangements whereby every baby born in the city will be referred to the milk station when proper home care cannot otherwise be given.

Third, to establish five prenatal and obstetrical clinics, two sick baby clinics and two well baby clinics. For future development: supervision of children to school age, an obstetrical nurse to be present at home deliveries, more hospital beds for obstetrical patients, visiting housekeepers, more intensive and extensive prenatal and postnatal work.

I am glad to say that in the space of three months considerable progress has been made. One organization has agreed to open three new pregnancy clinics. Another has enlarged its district. Two new infant welfare stations will be opened by the Baby Hygiene Association, and one clinic for the supervision of older children. There are also plans for opening one new sick baby clinic.

The Chairman: Will Dr. MacMurchy tell us what Canada is doing?

Dr. Helen MacMurchy, Toronto: When the hour of midnight struck on the fourth of August, 1914, your ally, the British Empire, had, in all her borders around the world, to face three problems. First of all, we had to carry on everything that had been done previously—and it was little enough—for the prevention and study of infant mortality; secondly, we had to proceed with our study and efforts, for none of these must be relaxed for a moment, to endeavor to improve what little work was done on these lines; and thirdly, we had to adjust ourselves to the situation suddenly thrust upon us, a peace-loving empire and nation, on being plunged into the most awful war of history.

Of course the first difficulty that confronted us has already been referred to, more than once today. We had lost, for the time being, many of our greatest leaders. It seems to me that all those with whom I have worked are overseas; some in France and Flanders, in Salonika, some in Mesopotamia, or in places I cannot pronounce the names of, and so on and so on. And what I want to say is this. Just as we realize that this meeting in this year of stress is one of the finest meetings this Association has had, so you will find it in every other sphere of effort. Paradoxical as it may seem, you will find leadership and inspiration, you will not miss the leadership and inspiration of those people to whom we owe and have owed so much, and to whom we shall owe so much more when they return. "You never know what sword is in the scabbard till it is drawn," as the Gaelic proverb says. People only get a chance to show one "sample" of what they can do in this world. One almost wonders with the revelations of character and the unsuspected depth and strength of purpose that are showing themselves around us, what would have become of all these, if the fearful war had not occurred to show us what people could do and could be!

So it will be found in all the places where we are carrying on work that we must not miss too much any of our workers or any of our leaders; others will take their places and the work will go on.

I shall not try to separate these three problems, but speak of them together in a cursory and superficial way.

First, What has been the aim of the military authorities in regard to the families of those gone to the front? Practically 400,000 men have gone out of a population of 7,500,000, more than one out of every sixteen of the population; in some places the proportion is much larger; in Alberta over one-tenth; in Toronto and the country around it, from a population of about 600,000, more than 60,000 we know have gone, and probably many more. Their families had to be looked after, and the military authorities, and I think also the civil authorities and the people, have laid upon themselves this wise provision—and I hope we shall soon accept it in times of peace as well as war—that the mother who is left behind with the children, shall have adequate support. The military authorities mean by that a separation allowance of not less than twenty dollars a month, and the husbands assign pay often up to the limit; and I may say that we are greatly indebted to our officers who in every instance I believe take an interest in every man and in his family, and study the problem with the men themselves. There is allowance for each child; and finally the Red Cross and the Patriotic Society and the Church and other organizations have supplemented these grants so that the mother should have a proper income to carry on with the children.

Then, what did the Dominion Government do? Well, there one cannot speak up to the moment. Some of you may know that last week, after a good deal of work we got a Union Government; politics does not mean in Canada what it used to mean. And we are prepared to change all our plans to carry on the work in the best possible way. There is also a proposal for a Minister of Public Health, and a strong request for a Children's Bureau at the capitol, Ottawa, in connection with the Dominion Government.

Besides that we have got quite a step in advance as regards statistics, and I do not think this would have been possible but for the awakening of thought that everybody has had since the war began. Our Chief Statistician has actually got all the Provincial authorities together and willing to "pool" statistics, and to standardize forms so as to work together.

Then, two important Commissions, with almost as great power as Government itself, are the Commission on Soldiers' Pensions to help the home and children—and incidentally infant mortality; and the Military Hospitals Commission.

Most of the Provinces have appointed Soldiers' Aid Commissions, whose business it is to do what the others are not doing. This has been very useful, and let me stop to say that this Commission I have mentioned depends chiefly on the work of the specially trained nurse, the public health nurse, the school nurse, the nurse that has social training and can go into the homes.

The Provincial Board of Health, particularly that in Ontario, has provided and established a Department of Child Hygiene, and I am glad to say that the chief worker, a graduate of the University of Toronto, is here, and I hope may say a word.

As for municipal government, I will take for example the city of Hamilton, a very progressive Canadian city and a great industrial centre. About the time this Association was formed, in 1909, the people of Hamilton began to bestir themselves about infant mortality; they appointed in 1909 a trained nurse, with a Baby Welfare League, and have had a successful campaign. Within a short time Miss Smith who was administering the Department saw the mortality cut in half. We lost her by death before she had been in the work very long. Her successor, Miss Helen MacDonald, a graduate of Johns Hopkins, is also present today.

Take Toronto as another city. The Health Officer, Dr. Hastings, a specialist in organization, has got his organization perfected and improved; has now an accomplished pediatricist on his staff and has co-ordinated the public school nursing so that the whole city is divided into districts.

Finally, I would refer to other cities, such as Vancouver. The infant mortality in New Zealand is better than in any part of the British Empire, below fifty per thousand births; but the city of Vancouver, I am told, has reduced its infant mortality to much the same. So, while for lack of time I am able only to mention a few of our cities, I feel that municipal government will be able to do a good deal.

We must come back to what we were reminded of by the message from Captain Emmons, when he spoke about the home. After all, the baby is the whole thing. The nation depends on the baby. The interests of the generation to follow ours are in the cradles that are being rocked in this country and all countries at the present time, and we must bestir ourselves to do more for the homes. I think we have been to blame for the little we have done in interesting people in marrying, and making it possible for them to marry; and we shall have to interest ourselves, as your great poet Longfellow did, when he

wrote "The Hanging of the Crane," after the Civil War, in building and establishing new homes to replace the hundreds of thousands of homes that have been closed or ruined by War.

The Chairman: We will hear now about the interesting experiment that is being carried out in Cincinnati.

THE CINCINNATI UNIT PLAN

MRS. WILBUR C. PHILLIPS, Cincinnati

There are three points which the discussion today, and the talks, have made clear. In all work in infant mortality, or in any other public health field, the first question is that of education. One problem here is that of the technical training of workers and nurses, in colleges, in training schools, and through field-work. A second factor in this educational problem is that of getting hold of the public, and making it understand the need for infant mortality or other public health work. The next point that has been driven home today is that infant mortality can not be thought of as an isolated factor. No matter how effective medical and nursing supervision and prenatal instruction may be, they cannot bring down infant mortality to the irreducible minimum till other problems are solved. And the third point is one that Dr. Bolt suggested at the luncheon, this noon, when he said that work must be put on a community basis in order to arrive at success. This is in line with the whole drift of social effort. It must be removed from the charity basis, made a matter of community organization; the public must be signed up to it, and it must be so planned that it will cover all the people, not neglecting Mrs. Putnam's "middle class."

These three points cover obviously desirable ends, but how are they to be achieved?

Unquestionably, the most difficult thing is the mechanism for doing the work. Suppose all the doctors who are to have charge of public health work were perfectly trained, and the public were educated and willing to support the work, still how are you going to organize the actual services so that they function effectively and so as to make it possible to bulwark them by a wider social program? It is because we hope the next three years are going to develop some indications, at least, of a solution of this question, that we ask you to follow our experiment.

The work is based on three main ideas. First, you must have organization if you are going to educate, because unless you do you cannot do anything but interrupted and ineffective work. Moreover, to be systematic and continuous in your education you must be able to reach the people continuously.

Second, education must be organic, must apply the principle that people learn by doing.

Third, if our ultimate ideal is community organization, any experiment we carry on must be based on democracy, or it will fail to reach the whole of the people.

I will give you the practical problem by going into the history. Five years ago, Mr. Phillips, who had been doing organization work for the New York Milk Committee, having got thirty-three stations started and safely in the hands of the New York Health Department, went to Milwaukee with the First Municipal Child Welfare Commission. He went with the idea of having a definite district, containing a known number of people and providing for every baby in that district, on the assumption that if this could be made a success in one district it could be applied to others. Mistakes made in the first district could be avoided in the second, third, and so on, only the successes being repeated.

That was the first idea. The second was that of medical organization. The usual practice in infant and other preventive stations is to bring in a skilled physician and put him in charge. The drawback from the point of view of community organization is this. In the first place, it means offense to the neighborhood doctors. They see their practice cut down, if the organization is successful. That means an attack on the pocketbook, and the local doctor is just as sensitive in that matter as any of us—and no more so! In the second place, if we fail to use the local doctor, we are failing in our educational task, because only preventive work is done in these stations and for curative care the babies are turned back to the local doctors, who, as you are all saying, are not always properly trained. Therefore the next step forward seemed to us that of making these health centers not only a means of service to mothers and babies but also a means of education to the local physicians. So we took our definite district in Milwaukee and proved that it was possible to bring all mothers and babies within that district under supervision. There were 360 to 390 infants, and never more than two mothers not co-operating. We proved also that it was possible to use the local men and reduce infant mortality. But we found the really interesting thing was not the proof of these points, but the new ideas that came out of the experiment.

On the neighborhood side we found there was a very heavy social task put upon the nurses. The burden became so heavy, because they had to secure the confidence and good-will of *every* mother, that they could not carry it without injury to nursing work, and we found we must make other provision. So we tried the experiment of having a committee of Polish women right out of that Polish district. This committee helped organize educational meetings, worked with mothers who would not follow instructions, and was an invaluable addition. But as time went on, we began to see that here was a development that held the germ of something big and vital, something that could become a means of making the neighborhood itself take hold of the work. We said, "If this small committee can do what it has done why not systematize the idea and carry it further? Why not divide the neighborhood by blocks and find in each block one woman to serve as a member of a neighborhood committee and represent the five hundred or so people in her block. Then if this group of women were lead by a capable executive, who gave them lectures on the needs of the babies and why this work was necessary, they could do the social work or the 'advertising' for the station." Thus out of this Milwaukee experiment the idea of intensive neighborhood work began to crystallize and take definite shape in our minds.

New ideas developed also with the medical administration. We proved that it was possible to use the local men, mostly Polish, and reduce the death rate. We had a skilled director, but we chose him and he found that while he was able to do something for the men, he could not do what he might have done if he had been chosen by them themselves. We realized that was the thing to do, that for once democracy was not only an ideal but a practical working-method.

Then there was the question of standardization. If this idea was to be repeated in other districts of the city and the work was to become a means of medical education carried out by local doctors in touch with men of wider skill, we must have a medical standard that would meet with the approval not only of the particular group of doctors in our district but with that of the total profession. So we said we would go to the County Medical Society, the official organization of all the doctors in the community, and, if they approved of this experiment, ask them to elect a committee of the men whom they as their fellow-technicians, deemed best fitted to set up a medical standard and

direct the medical policy for the district work. This city committee would serve as advisors while the local men would carry on the actual services, electing their own supervisor, who would serve on the city committee and form the connecting link. Thus there would be created an organic relation and a clear channel through which the specialists could pour down to mothers and babies *and* the local doctors the best of the knowledge and skill in the community. If that proved practicable, the same thing could be done through the whole line of medical services until finally there would be developed a health center, democratically run by the doctors of that district and yet placing the best skill of the whole community at the service of the people.

Also you will see that if it is possible to develop that type of medical service and training in one district, it can be repeated, unit by unit and district by district, until you have achieved the ideal where the total community is organized, everyone under preventive care and every doctor constantly growing because constantly securing organized clinical experience.

If these ideas were worth anything, we decided they were worth working for. We consulted with other social workers and doctors. We organized a national body and offered this program, and funds, to any American community that might be interested in it. This was done because if the experiment was to be democratic, the demand must come from the bottom up—the city must desire the program. By proceeding in this way we got what we wanted; sixteen cities wrote in and made enquiries, several were greatly interested, and finally Cincinnati was chosen. We reached there last January. But we did not wish to impose the idea on any district, either! We wanted to start it in a truly democratic way. Some neighborhood must be made to want the thing and invite us to go to it. After a campaign of publicity through our City Organization in Cincinnati, six districts became interested, a competition resulted and we finally went into what is called the Mohawk Brighton District, at the signed invitation of over three thousand of its residents. Out of this district, 31 contiguous blocks containing about 15,000 people were selected as our "unit." In each block there is, or is to be, a block council; the representative of that council being a woman. That gives us one representative for each block, in our geographic house or "house of representatives." We have also a senate based on what we call "occupa-

tional group" representation. The local doctors, thirty-eight of them, have as a "group" organized and this local body has been made a sub-committee of the Academy of Medicine. So the local doctors are democratically organized; and yet we have the whole medical skill of the city gradually assembling behind the work, *at the invitation of the local men.*

Again, the social workers of the district are organized as a "group" with a single representative and in the same way the nurses, the ministers, the trade unionists, the teachers, the business men. Thus in addition to having a house of representatives made up of block workers, we have a second smaller house of representatives on occupational basis, made up, that is, of skilled people, organized on technical lines. Our city and voting bodies are organized in like fashion, so that the two houses can link up with the local ones.

While of course infant mortality and all other health services are of great interest to us, nevertheless they are to those who are most deeply interested in this plan, only an entering wedge. We chose the public health work because, out of all social work, people are most easily approached on that angle. Our deepest hope is that we have made a beginning in the problem of democracy.

Democracy is something like the weather. As Mark Twain once said, "Everybody is always talking about the weather but no one ever does anything about it!" But we hope in this experiment we have at last got hold of a clue to lead us to a genuine democracy where the people will actually hold the power, completely controlling policy, yet calling upon experts to formulate programs for carrying out the policies decided upon. In other words, we hope that here is a method of creating a democracy and at the same time making that democracy efficient by bringing to its counsels the highest skill to be found in district, city and nation.

DISCUSSION

Dr. Francis E. Fronczak, Health Officer, Buffalo: The Department of Health of the City of Buffalo, divided the city into five districts, in each of which is located what is known as a Health Center. The first Health Center was established in one of the oldest parts of the city containing a very mixed population, many of them of foreign birth. We found people of eighteen different nationalities in this district, and therefore, considered it a good one in which to start the work. First of all we organized a mother's clinic, com-

bining it with prenatal educational work. Every mother was instructed in the care of herself and her infant, both before and after birth. After the baby was born a nurse visited the home to ascertain the condition of the mother and baby, then gave instructions as indicated. Not only did she instruct but also assisted in carrying out those instructions until she was sure that they were properly understood and by frequent calls ascertained whether they were carried out. All infected eyes were treated and best of all prophylactic measures were instituted so as to avoid such infection. How well we succeeded in this respect is very elaborately described in Pamphlet Form No. 13 on "Sight Saving a Civic Duty," being "a demonstration by the Public Health Department of Buffalo of how a typical city conserves the vision of its future citizens" and issued by the National Committee for the Prevention of Blindness after making a thorough investigation by its own agent.

This survey also includes the following:

- A well baby clinic
- Mothers' and Little Mothers' club
- Sick baby clinic.
- Nose, throat, ear and eye and skin clinic
- Medical clinic
- Prenatal clinic for the guidance of expectant mothers
- Dental clinic with a full time staff for school children
- Tuberculosis clinic
- Tuberculosis supplies, such as paper napkins, sputum cups, etc.
- Free milk and eggs where indicated
- Venereal clinic. (Venereal cases are immediately referred to the Urologic Hospital maintained by the city.)
- Specimens for laboratory tests
- Social service

As a result of all this and other departmental work, we have succeeded in reducing our infant mortality from 160 to 108 per thousand.

These Health Centers are in reality a miniature health department in every portion of the city.

Dr. Worth Ross, Health Officer, Detroit: Our Health Department has claimed that this war is going to depend not only on bread and bullets, but on bread, bullets and babies.

What we are going to do as a war measure resolves itself after all into the question of redoubling the efforts we have been engaged in, during normal times. If we worked for the reduction of infant mortality in the past by methods that seemed feasible in our particular localities, the war problem seems to be the same, but working twice as hard.

It comes back also to the old question of education which has been referred to so many times during this session, for that is the basis of the solution of the whole problem. In Detroit, we have started more extensively than ever before this year, public school education in the care of babies. Heretofore we have conducted the Little Mothers' Leagues in a few grades. This year we are extending them throughout the grammar school. Last year, seven hundred, I believe completed the course, not more than a quarter of the number

who took it, but we have already had occasion to recognize in our regular clinic work the benefit of the training that has been given to these small mothers, and we feel that the next generation is going to be greatly benefited by that training.

In addition to the classes for the Little Mothers' Leagues, the school nurses are giving monthly talks on personal hygiene to the children in the school rooms. These talks were originally given on the invitation of the teacher and the principal, but the plan has been so successful that there has been a universal demand for them.

We are trying the plan, too, of giving talks to mothers in the public schools and also of giving talks to mothers in the community centers. The latter classes were organized by the workers in the various community houses and nurses from the Department of Health gave the instruction. One important feature of the plan and one which I think has had a marked psychological effect on the mothers, was to have the mothers cut out and make proper clothing for the babies, in these meetings. We tried formerly giving talks to the mothers at the Public Health Centers, but so many of them were of foreign birth, that they could not understand the talks. Now that they are given something to do with their hands, they seem to feel more at home. They are getting an idea of co-operation and their interest is much more easily held.

A most important work which is being done in Detroit through the efforts of the Board of Health, is the registration of the midwives. There is a very large foreign element in our population which is accustomed to the midwife and we have been unable to legislate her out of business. We are supervising the midwives so carefully that we feel they have attained a certain degree of efficiency and are no longer a menace in the community.

This closed the discussion.

AMERICAN ASSOCIATION
FOR
STUDY and PREVENTION
OF
INFANT MORTALITY

TRANSACTIONS OF THE EIGHTH ANNUAL
MEETING

RICHMOND, OCTOBER 15-17, 1917

**PART IV—Reports of Affiliated Societies, Membership
List and Index.**

Headquarters of the Association
Medical and Chirurgical Faculty Building
1211 Cathedral Street, Baltimore, Md.

PRESS OF
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BALTIMORE
1918

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**AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT
MORTALITY**

(Headquarters, 1211 Cathedral Street, Baltimore, Maryland)

**Suggested Outline for Report of Affiliated Societies for year ending
September 30, 1917**

Reports were asked for in accordance with Article X of the By-Laws. Replies were received from 53 organizations. The replies to the questions in regard to War Service, Prenatal Care, and Care of Children of Pre-School Age, and Special activities, are published in full, as far as possible, and are to be found on pages 277, 285, 291, 293.

Answers to other questions, except in a few instances, have been tabulated and are to be found opposite page 276.

Unless otherwise indicated, figures given are for the year ending September 30, 1917. The outline follows:

- I. Name and address of Association.
- II. Date of Organization. Is the work carried on all-the-year-round?
- III. Staff:
 - Name of Medical Director
 - Name of Supervising Nurse
 - Number of doctors, number of nurses, number of social service workers
 - Have any of your nurses gone into war service? If so, how many?
 - How many of your medical staff have gone into war service?
 - What are you doing to fill these vacancies?
- IV. What work is your organization undertaking as a war measure—
 - a. For the reduction of infant mortality.
 - b. For the promotion of infant and maternal welfare; or,
 - c. For the conservation of the health of the older children.
- V. If you have not given specific information in regard to the routine work of your Association in your answer to IV, please summarize what you are doing along the following lines:
 - a. Prenatal care:
 - When started, sources from which the mothers come—that is—obstetrical clinics, hospitals, etc.
 - Total number of mothers cared for during the year
 - Average number of months under your care
 - Total number of deaths of mothers during the year
 - Do you maintain obstetrical clinics? If so, how many each week? Average attendance
 - b. Obstetrical care:
 - What provisions do you make for the care of mothers during confinement?
 - c. Postnatal care:
 - What is the age limit of the babies under your care?
 - Total number under one year cared for
 - How many infant welfare conferences do you hold each week?
 - Average number of babies in attendance
- VI. What provision do you make for the care of children between the ages of two and six years?
- VII.
 - a. Total number of births registered in your city or town during the year ending Dec. 31, 1916.
 - b. Total number of deaths under one year for the year ending Dec. 31, 1916.

**WAR SERVICE REPORTED AT THE 8TH ANNUAL MEETING OF THE
AMERICAN ASSOCIATION FOR STUDY AND PREVENTION
OF INFANT MORTALITY, RICHMOND, VA.,
OCT. 15-17, 1917, BY AFFILIATED
SOCIETIES**

CANADA

**BABIES' DISPENSARY GUILD
Hamilton**

Of our original medical staff of fourteen, seven enlisted for oversea service, one of these having died in England recently of pneumonia. Three of the remaining seven have given a good deal of time to army medical work at home. There have been four additions to the staff, with the prospects of a fifth; making ten available clinicians with one pathologist. Despite their increased duties the medical men have let nothing interfere with their voluntary work at the Dispensary. Seldom does a man fail to attend his clinic, and if he is prevented from doing so it is customary for him to notify our office in time for a substitute to be procured.

Last spring two of our four nurses went overseas with a hospital unit. Since May we have had only three nurses. The gift of a Ford car to the Guild has partially met this shortage on the staff.

We have no trained social service workers, but three members of our Woman's Board give an afternoon a week each to help in weighing the babies and taking temperatures at the busier clinics.

An invitation is sent to every mother, whose baby's birth is registered, to attend our clinic; while the same leaflet is enclosed by the Patriotic Association with the allowance checks sent to wives of our soldiers.

Recently a prenatal clinic has been started for women who cannot afford the services of the private physician, and who will agree to follow instructions and come into the City Hospital for confinement. In addition to this, we visit a number of prenatal cases who have their own physician, and who eventually bring their babies to the clinic.

The Association holds seven infant welfare conferences each week, three in public schools, and four at the city hospital. Babies are cared for up to two years of age. Total number under one year cared for, during the year ending September 30, 1917, 569.

J. H. MULLIN, M. D., *Medical Director.*

HELEN R. MACDONALD, R. N., *Supervising Nurse.*

CONNECTICUT

**INFANT WELFARE SOCIETY
New Haven**

This organization plans to extend its infant welfare work by the establishment of conferences on the care of children from two to six years old.

JOSEPH I. LINDE, M. D., *Medical Director.*

ABBY M. GILBERT, R. N., *Supervising Nurse.*

DISTRICT OF COLUMBIA

**DIET KITCHEN ASSOCIATION
Washington**

Eight members of the medical staff have gone into war service. The Association co-operates with the Red Cross Civilian Relief Committee which refers all soldiers' families with babies under two years, and also prenatal cases, to the organization. Reports are made to the Red Cross regarding the physical condition in all children in referred families, needing special care.

JOSEPH S. WALL, M. D., *Medical Director.*

ESTELLE L. WHEELER, R. N., *Superintendent.*

INDIANA

BABIES' MILK FUND ASSOCIATION

Evansville

Evansville is a manufacturing center. There are a great many factories employing thousands of men, but in the last few months a large number of these men have been called to war, so the mothers and daughters have been compelled to go to work in the factories. On this account the Babies' Milk Fund Association is arranging for a series of noon hour lectures on the care and feeding of infants, to be given at the various factories where mothers are employed.

Three members of the medical staff have volunteered for war service. Three infant welfare clinics are held weekly, with an average attendance each week of 77. Two of the clinics have been consolidated in a centrally located section for the winter, to meet the situation caused by the absence of some of the conference physicians.

C. V. INGLE, M. D., *Medical Director.*

MRS. M. C. TRIMBLE, R. N., *Supervising Nurse.*

KENTUCKY

BABIES' MILK FUND ASSOCIATION

Louisville

One nurse and three members of the medical staff have gone into war service. The vacancies have been filled by doctors exempt from military service, who are rendering this service without compensation as "their special act of home service." The instruction of the civilian relief classes in infant care is given by members of the Babies' Milk Fund Association staff.

GAVIN FULTON, M. D., *Medical Director.*

ELISABETH SHAVER, R. N., *Supervising Nurse.*

LOUISIANA

CHILD WELFARE ASSOCIATION

New Orleans

Two of the nurses and two of the conference physicians have gone into war service. The following have been undertaken as war measures:

I. For the reduction of infant mortality:

1. We have conducted a financial campaign that has enabled us to enlarge the scope of our work and increase our facilities. We have opened two new stations and are preparing to open two more.
2. We have established a Better Babies Bureau in which *all* babies under three years of age are encouraged to register. These babies are to be examined carefully every six months by specialists and graded for improvement. During the interval between examinations they can be kept under observation at the stations of the Child Welfare Association. Numerous prizes will be given for improvement, these prizes to be given during Baby Week in the spring and at a local live stock fair in the fall.

3. Launching a publicity campaign to educate the public regarding the extent and probable causes of infant mortality in New Orleans.
- II. For the promotion of infant and maternal welfare:
 1. We have secured the assistance of the Lying-in Hospital Society who have recently begun to conduct prenatal clinics at our stations and who will care for all deliveries of mothers on our rolls.
 2. Conducting a system of lectures in public halls, public schools and Newcomb College. This work is not an innovation, but has merely been enlarged in scope to meet the increasing demand.
- III. For the conservation of the health of the older children:

Weekly clinics for children from three to five years of age.

W. W. BUTTERWORTH, M. D., *Medical Director.*
 MARY L. RAILEY, *Director.*

MASSACHUSETTS

BABY HYGIENE ASSOCIATION

Boston

Three members of the medical staff have resigned to take up war service. The Association is planning as a war measure, in addition to special effort to reach babies in the districts already covered by stations, to open two new stations in districts not covered. It also plans to open immediately one clinic for the supervision of children between milk station age and school age.

J. HERBERT YOUNG, M. D., *Medical Director.*

COMMITTEE ON PRENATAL AND OBSTETRICAL CARE OF THE WOMEN'S MUNICIPAL LEAGUE

Boston

The Medical Director of the Committee was called to service in the Reserve Officers Medical Corps, and with the additional work which the war has thrown upon all doctors left at home, it seemed hopeless to try to fill his place. The three clinics maintained by the Committee were closed temporarily, but within a short time one—the clinic connected with the Out-Patient Department of the Peter Bent Brigham Hospital—was reopened on a new basis. It is now being carried on in affiliation with the staff of the Lying-In Hospital, and an effort is being made to reach the mothers of moderate means rather than the very poor. The charge for service has been advanced to \$25.00 a case, and payment is required. The service includes prenatal care, and care during confinement.

A. B. EMMONS, 2ND, M. D., *Medical Director.*
 MRS. WILLIAM LOWELL PUTNAM, *Chairman.*

FLOATING HOSPITAL

Boston

Has reopened for the winter a health clinic which will take care of all the children referred from the Hospital, and will supervise other children in the same families up to seven years of age. It will also give follow-up care to children over one year of age, not in need of dispensary treatment, referred from other agencies.

SARAH A. EGAN, R. N., *Superintendent of Nurses.*

INSTRUCTIVE DISTRICT NURSING ASSOCIATION
Boston

The Director of the Association is a member of the State Advisory Committee to the Department of Health on Child Conservation; is chairman of the sub-committee on Public Health Nursing, of the Committee on Hygiene and Sanitation to the General Medical Board of the Council of National Defense, and is also chairman of the Division of Child Welfare of the Woman's State Council of Defense.

A course of ten lectures, four laboratory periods, and five demonstrations on food values and dietetics, was given to the staff nurses during the summer. "The course was designed to teach the nurses how to teach their families the best means of meeting the needs arising out of the present crisis, with special emphasis on the conservation of health, and on the preservation of the health and efficiency of the children of this and of the next generation from the debilitation and other evils due to underfeeding."

Visiting housekeeper employed to aid nurses in the home teaching.

Staff salaries increased to strengthen permanent work under unusual pressure.

MARY BEARD, R. N., *Director.*

MASSACHUSETTS STATE DEPARTMENT OF HEALTH, DIVISION OF HYGIENE
Boston

A Committee on Child Conservation was appointed by the Commissioner of Health to extend the infant and child welfare work. Eight additional workers, child welfare supervisors, have been appointed, one for each of the eight health districts. These supervisors are working in co-operation with the State District Health Officer in each district, making surveys of individual communities and discovering what the actual health conditions are. When the special problem of a city or town has been determined, definite effort follows to prevail upon that city or town to provide funds to meet its individual needs.

Funds for the payment of the salaries of these supervisors have been secured from the Red Cross, thus saving the State funds as far as possible, and enlisting a widespread outside interest. The sum of \$5,000 has been granted by the Governor and Council for the purpose of defraying the expenses of the field workers.

Information has already been obtained and plotted on maps showing present hospital facilities, baby clinics, and various relief organizations, and the location of health and social workers for the entire State. The records of the State Department of Health showing the births, and deaths and the infant mortality rate for every city and town in the State are also available for the use of this committee.

Acting at the request of the committee on child conservation, a survey of the city of Boston has been made by the Baby Hygiene Association to find out the character and extent of the preventive and curative work done for infants and children, and to determine the lines along which it is most necessary to extend this work.

LYMAN ASA JONES, M. D., *Chief of Division.*

INFANT HYGIENE ASSOCIATION
Holyoke

The Association has undertaken the following, as war measures:

a. Establishment of clinics for children of pre-school age, and also clinics for weighing and measuring of children. Broadening out of *area* of present work.

b. Prenatal clinics and prenatal visits, and plan to employ an additional nurse for prenatal work, only.

c. Lectures and talks at mothers' club meetings throughout the city.

F. H. ALLEN, M. D., *Medical Director*.

LUELA THOMPSON, R. N., *Supervising Nurse*.

NEW JERSEY

CHILD FEDERATION

Atlantic City

The Federation is working in conjunction with the Home Service Committee of the Red Cross, and is giving special attention to the families of the soldiers and sailors.

More intensive work is being undertaken in the homes, for the reduction of infant mortality, prenatal, as well as postnatal work is emphasized, and plans are being made for the establishment of a children's hospital, with dispensaries, and also for the enlargement of the maternity department of the Atlantic City Hospital. The supervising nurse is serving as secretary of the local Red Cross nursing service.

D. J. M. MILLER, M. D., *Medical Director*.

ANNE H. WETHERILL, R. N., *Supervising Nurse*.

NEW YORK

CHILD WELFARE ASSOCIATION

Batavia

The Association is affiliated with the Home Service Section Civilian Committee of the Red Cross.

EDITH F. RYAN, M. D., *Medical Director*.

MRS. L. B. WILLIAMS, R. N., *Supervising Nurse*.

DISTRICT NURSING ASSOCIATION

Buffalo

As a war measure the Association has—

a. Opened a daily clinic at the Children's Hospital for sick babies discovered by field nurses, or brought into the 13 prophylactic dispensaries.

b. The Association has placed a nurse on duty at the University of Buffalo Hospital daily, to look after the sick babies and children up to sixteen, who go there for treatment, and to convey the orders from the doctors to the field nurses.

c. The Association has enlisted the service of members of the Social Service Committee, so that infant welfare nurses in outlying districts may have the use of an automobile two or three mornings a week. The automobiles are also used to convey mothers and babies living at a distance from the dispensary to the weekly clinics or the central clinic.

W. P. ARNOLD, M. D., *Medical Director*.

MRS. ANNE L. HANSEN, R. N., *Suprintendent*.

ASSOCIATION FOR IMPROVING THE CONDITION OF THE POOR, BUREAU OF EDUCATIONAL NURSING

New York City

Is giving special attention to tubercular families, with particular reference to prevention.

PHILIP VAN INGEN, M. D., *Medical Director*.

B. L. LELACHEUR, R. N., *Supervising Nurse*.

BABIES WELFARE ASSOCIATION**New York City**

In co-operation with the Red Cross, the central office is daily handling cases for their workers. See also report, page 293.

MARY ARNOLD, *Executive Secretary*.

HENRY STREET SETTLEMENT**New York City**

A number of the staff nurses have gone into war service. To fill these vacancies other nurses have been taken on the staff, and in co-operation with the training schools, training is given to selected groups of third year pupil nurses in obstetrical work, as well as general visiting nursing.

The Settlement has also opened a maternity center, in co-operation with the Woman's City Club, and the Manhattan Maternity Hospital, as an experiment in maternity protection. See page 295.

LILLIAN D. WALD, R. N., *Head Resident*.

NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS**New York City**

Two ophthalmologists who have aided the committee materially in lecture work have entered war service. To carry on their activities in this direction, those in the work are assuming greater obligations.

The Committee has placed its resources at the command of the Government for:

a. Lecture work in military concentration and training camps to instruct the men to care for their eyes, to avoid spreading infection by the use of common towels, etc., and to realize the result of careless living upon not only the present but succeeding generations.

b. Instruction to untrained workers in munition and other factories on eye hazards in the industries, and the general care of the eyes, and prevention of eye diseases.

EDWARD M. VAN CLEVE, *Managing Director*.

WINIFRED HATHAWAY, *Secretary*.

NATIONAL ORGANIZATION FOR PUBLIC HEALTH NURSING**New York City**

The Association is co-operating with the Federal Children's Bureau, the General Medical Board of the Council of National Defense, and other associations.

NEW YORK DIET KITCHEN ASSOCIATION**New York City**

Up to the present, the main aim of the organization has been to extend and improve its work among babies, mothers and older children. With the help of volunteers it has been possible to increase the volume of work. In two stations cooking classes for mothers are being carried on by instructors provided by the Food Aid Committee of the Mayor's Committee on National Defense with the Association furnishing accommodation, equipment and audience.

The Association is maintaining at present 4 stations, conferences for children between the ages of 2 and 6 years. For a portion of last year 6 conferences were carried on, but 2 have had to be given up temporarily for lack of physicians.

These conferences are conducted on the same general plan as the babies' conferences. They are recruited from "graduate" babies and older children in the families already under the care of the stations. The children are brought to the stations, registered, weighed, given a thorough examination by the physician in charge, the result being carefully recorded on a special card. The doctor then indicates to the nurse and explains to the mother the defects noted, and outlined treatment necessary to bring the child up to normal condition.

Many times this means only improvement in the quantity or quality of diet and proper attention to hygienic measures; in other instances, of course, medical, surgical or dental treatment is indicated and the children are sent or taken to the dispensaries or hospitals best equipped to give the necessary treatment. The children are brought back to the doctor as often as may be necessary, but, of course, are not required to appear in all cases as regularly as the babies at their conferences.

This work, like the baby, involves much supervisory care and visiting in the home and should be extended to all the stations of the Association as rapidly as possible, but at present an insufficient staff and unusual demands on the funds of the Association interfere with the needed extension.

MARIA L. DANIELS, R. N., *Director.*

RIVERDALE HEALTH LEAGUE

New York City

The League has a committee on civilian relief, which looks after the families of soldiers.

LAVINIA K. CHAPMAN, R. N., *Supervising Nurse.*

HEALTH BUREAU

Rochester

As a war measure the Bureau is extending prenatal and postnatal work.

GEORGE W. GOLER, M. D., *Health Officer.*

OHIO

CHILDREN'S CLINIC, UNIVERSITY OF CINCINNATI, COLLEGE OF MEDICINE

Cincinnati

As a war measure the Children's Clinic is co-operating with organizations doing Red Cross relief work, special attention being directed toward the reduction of infant mortality and the conservation of the health of older children.

B. K. RACHFORD, M. D., *Medical Director.*

MRS. ADA S. STOKES, R. N., *Supervising Nurse.*

PENNSYLVANIA

BABIES' WELFARE ASSOCIATION

Philadelphia

One hundred and thirty-two agencies in Philadelphia interested in the welfare of babies are active members of the Babies' Welfare Association. During the summer of 1917 the Philadelphia District Committee of the Committee of Public Safety requested the Babies' Welfare Association to look after the inter-

ests of the baby up to school age. In order to do this the policy of the Association has been somewhat changed and the following sub-committees have been organized: Statistics on Infant Welfare; Prenatal Work; Infant Nutrition;; Infant Welfare Nursing; Prevention of Diseases of Infancy; Care of Sick Babies; Care of Dependent Babies; Infant Welfare Legislation.

A census to determine the present available resources of all of the institutions and agencies which are active members of the Association is being completed and the information thus obtained will be used as a basis for the winter's work. See also page 296.

H. L. HARTLEY, M. D., *Secretary.*

ELIZABETH HOFFMAN, *Assistant Secretary.*

DIVISION OF CHILD HYGIENE

Philadelphia

The following have been undertaken, or extended as war measures:

As a war measure in the prevention of infant mortality, the Division of Child Hygiene, on July 1st, added 10 nurses to its staff and began a more intensive plan of work in the city wards where it is already operating. Special efforts are being directed toward establishing more day nurseries where the infants of employed mothers may be properly cared for.

Weekly conferences are being organized where mothers may come and discuss better means of caring for their little ones. These conferences are usually presided over by a physician who gives prophylactic talks to the mothers and advises concerning any case which may be in question. Babies are weighed and proper modifications of milk taught. These conferences in connection with six health centers recently established, make it possible for people from nearly every part of the city to easily get in touch with the Bureau of Health.

Medical inspection of baby boarding houses, private maternities and day nurseries is carried on; silver nitrate ampules are distributed to midwives and their delivered cases followed up by the municipal nurses. Birth registration is advocated. Prenatal conferences are conducted weekly attended by physician who gives health talks generally and holds private conferences with mothers who are particularly disturbed by their condition. Blood pressures are taken and urinalysis made of all cases.

Expectant mothers are visited in their homes and instructed in the care which is necessary at this time for a safe delivery, a healthy baby and a normal mother.

Wasserman tests are taken of all women who desire to register in this Division as wet nurses.

Little Mothers' Leagues are conducted by the field nurses in the public schools and by the supervising nurses in the health centers.

Pre-school medical inspection of houses where children are boarded. Smears and cultures are taken of all admitted. All children of parents unable to have a private physician are vaccinated free of charge at the health centers. Follow-up work in the aftercare of poliomyelitis, diphtheria and scarlet fever is conducted in nearly all of the city wards.

Dental clinics have recently been established in three of the health districts and many of the public schools where children of poor parents may be treated free.

HARRIET L. HARTLEY, M. D., *Medical Director.*

PRENATAL AND OBSTETRICAL CARE

MASSACHUSETTS

THE PRENATAL AND OBSTETRICAL COMMITTEE OF THE WOMEN'S MUNICIPAL LEAGUE

Boston

At the end of three years of experimental work the Prenatal and Obstetrical Committee of the Women's Municipal League found itself obliged to close the doors of all its three clinics. The medical director was called to service in the Reserve Officer's Medical Corps, and with the added work which the war has thrown upon all doctors left at home it seemed hopeless to try to fill his place. Moreover, the committee differed rather fundamentally as to the class of patients to be cared for. The previous year a sliding scale of payment had been tried to meet the needs of varying classes of patients, but the increasing number helped by this means had proved to be almost negligible and the source of funds for work along these lines dried up. Something radical had to be done and the only possible thing seemed the step taken—to shut up shop and wait.

This action, however, did not meet the views of the president of this Association, who stated so unequivocally to the chairman of the Committee what he considered her duty in the matter, that she went home to see what could be done, with the result that we have reopened the most important of our clinics, the one in the Out-Patient Department of the Peter Bent Brigham Hospital, and are carrying it on in affiliation with the staff of the Lying-In Hospital. We now employ our own nurse instead of being dependent on the kindness of the Instructive District Nursing Association as heretofore. The patients are delivered in their own homes as they always were, but the nurse is present at the confinement with the doctor—a dream which we had previously never got beyond dreaming—the patients pay the cost of doctor and nurse, and we have already more patients coming to the clinics than we had before when they were not paying nearly the expense of their care. These results are exceedingly gratifying for they go to show that the clinic is meeting a real need, the need of those in the community who are always least well cared for—the great class of people of very moderate means.

The charge is not high, but we intend it to be high enough to make the work entirely self-supporting, and if we find at the end of the year that we have under-estimated the cost we shall raise the charge accordingly, because we believe that a self-supporting work is of far more value than one supported by charity—for not only is there no limit to its growth, but it is much more appreciated by those who benefit by it.

This charge is \$25.00 a case and payment is required. It covers visits by the patients to the clinic, and visits by the nurses to the patients in their homes. At the clinic they are thoroughly examined by the doctor as early in their pregnancy as they apply, and kept track of by visits to their homes by the trained nurse at least once in ten days, and oftener if any suspicious symptoms arise. If the nurse sees any untoward signs in the patient, she is sent in to the clinic again for further examination and care. Among other matters the proportion between the size of the developing baby and the mother's pelvis is carefully watched, in order that should Caesarean section be necessary it may be performed under the most favorable circumstances, etc. The nurse attends the confinement with the doctor, which is not commonly done in out-patient maternity work, but it appears to be one of the things most longed for by the patients. After confinement the doctor and the nurse pay the customary number of after care visits, until the puerperium is at an end. This very small charge for the amount of service rendered is made possible by the

willingness of the doctors to accept the small sum of \$10.00 a case because of their great interest in the work. The remaining \$15.00 covers the prenatal visits—which the precursor of this committee found in its five year experiment in prenatal care to be slightly under \$3.00 a case—the confinement itself, the after care, and the clinic charges. If ether is used a small additional charge is made. The materials for the supplies for the confinement, which the patient can make herself, are sold to her at the wholesale rate, and the nurse shows her how to make them up, after which, through the generosity of the Peter Bent Brigham Hospital they are sterilized ready for use.

The charge of \$25.00 seems as moderate as it is possible to make it, and we believe that it will meet all expenses when the nurse's time is full. That it does not strike the patients as excessive is indicated by the fact previously stated that already more of them are coming in than when the service was more or less free.

The people of moderate means make up the great body of the community, and if their needs in childbirth, which are now so inadequately met, can be properly provided for, it is not difficult to see what a difference it will make in the vigor of the next generation and in the health of the women of this. It is the demonstration of the possibility of doing this in any city, through trained obstetricians and trained nurses, for a cost within the means of the average family that we are making, and I am sure it will succeed.

Peter Bent Brigham Hospital

	No. of cases	Visits to Clinic	Prenatal visits	Postnatal visits	Cared for—		
					Clinic M. D.	Private M. D.	Other Agency
1914.....	29	41	(16) 101	(16) 135	11	6	6
1915.....	75	130	(40) 211	(32) 299	21	18	12
1916.....	113	183	(61) 340	(52) 317	46	14	11
1917.....	17	27	(8) 30	(6) 75	7	1	4
	<u>234</u>	<u>381</u>	<u>125 682</u>	<u>106 826</u>	<u>85</u>	<u>39</u>	<u>33</u>

Deliveries

	Normal	Instruments	Caesarean	Premature	Breech	Unknown
1914.....	13	4	..	..	..	6
1915.....	30	2	..	2	..	17
1916.....	48	7	1	..	3	12
1917.....	6	1	1	1	..	1
	<u>97</u>	<u>14</u>	<u>2</u>	<u>3</u>	<u>3</u>	<u>36</u>

No mother died.

45 "Lost." 12 Moved. 20 non-pregnant and miscarriage.

"Lost"	Moved	Miscarriage	Non-pregnant
2	1	1	2
14	4	(threatened) 1	3
26	7	2	7
3	..	..	2
<u>45</u>	<u>12</u>	<u>6</u>	<u>14</u>

BABIES

	Normal, Well, OK, Good	Stillborn	Died	Unknown	Fair	Indefinite	Dead foetus
1914.....	16	..	..	8	..	1	..
1915.....	*80	1	†2	30	..	5	1
1916.....	*58	1	‡2	42	1	..	..
1917.....	9	..	..	7	..	..	..
	<u>118</u>	<u>2—1.6%</u>	<u>4—3.1%</u>	<u>87</u>	<u>1</u>	<u>6</u>	<u>1</u>

*1 premature, but good condition.

†1 pr. twins lived 15 minutes.

‡1 died in 1 mo. 9 days, congenital marasmus. 1 died in 4 days.

§1 congenital stenosis of rectum, operated on successfully at Children's Hospital.

MRS. WILLIAM LOWELL PUTNAM, *Chairman of the Committee.*

NEW YORK
METROPOLITAN LIFE INSURANCE COMPANY

New York City

Maternity Work in the Visiting Nurse Service, 1916

The nursing of maternity conditions has from the beginning played an important part in the visiting nurse work of the Company. Thus in 1916, out of 163,009 female policyholders visited 41,572 or 25.8 per cent were directly concerned with diseases and conditions of the puerperal state. Of this number of cases, 36,815 or 88.6 per cent were for women between the ages of 20 and 40 years. There were, therefore, in 1916, 19.5 maternity cases per 1,000 female industrial policyholders at these child bearing ages. The corresponding rate in 1915 was 17.6 per thousand and in 1914 only 15.8 per thousand. It will be seen therefore that the Company's wish to extend the work of its visiting nurse service to an increasingly large number of women among its industrial policyholders is meeting with the support of the policyholders themselves, of the nurses and of the agency staff.

Of the total number of puerperal cases in 1916, 32,907 were normal. These cases were concerned either with pregnancy alone, with prenatal care continuing through and including after-care or with after-care in childbirth only. In addition, there were 3,469 cases of abortion and miscarriage, 967 cases of puerperal septicemia, the remainder being distributed over a number of other acute diseases and conditions of the puerperal state. There were in all 39,438 cases (95 per cent of the total) with a physician in attendance. Of this number 30,189 were actually nursed, 7,070 were advised and 2,179 were neither nursed nor advised.

Each case received an average of 5.9 visits covering a period of 7.9 days of nursing care. In the age group which received intensive nursing under the care of a physician, the average number of visits was greater, 7.7 per case and the period in which these visits were made was correspondingly longer, 10.1 days per case. The number of visits and the number of nursing days vary, of course, with the type of case nursed. Where there are complications of any kind, the nurse is expected to give service precisely as she would in any other case of acute disease. It is not surprising, therefore, to find that the average nursed case of puerperal albuminuria and convulsions received 11.3 visits covering 16.6 days and the average nursed case of puerperal septicemia 12.8 visits covering 15.7 days of nursing care. At a cost of little more than 51 cents per visit the average puerperal case cost about \$3.04. The entire maternity service comprising 243,738 visits represented an expenditure on the part of the Company of \$125,525.07.

An interesting feature of the maternity nursing of the Company during 1916 was the increase in the number of cases of prenatal service. Thus, there were 7,459 cases visited during pregnancy only. In addition, there were 1,552 cases of normal childbirth which received both prenatal and postnatal care. These cases represent the form of service which we would most develop. The 1,424 cases of this type which were nursed with a physician in attendance average 8.6 visits per case. There is already considerable evidence that the Company's offer to sanction prenatal visits is being availed of by an increasing number of policyholders.

The Company's policy of encouraging maternity nursing has apparently had a very salutary effect upon the mortality experience of the Industrial Department from the diseases and conditions associated with childbearing. Thus, during 1911 there were 70.1 deaths from puerperal causes per 100,000 white female policyholders between the ages of 15 and 44. In 1916, the death

willingness of the doctors to accept the small sum of \$10.00 a case because of their great interest in the work. The remaining \$15.00 covers the prenatal visits—which the precursor of this committee found in its five year experiment in prenatal care to be slightly under \$3.00 a case—the confinement itself, the after care, and the clinic charges. If ether is used a small additional charge is made. The materials for the supplies for the confinement, which the patient can make herself, are sold to her at the wholesale rate, and the nurse shows her how to make them up, after which, through the generosity of the Peter Bent Brigham Hospital they are sterilized ready for use.

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from these conditions was reduced to 62.6 per 100,000 which is a decrease in the rate of 10.7 per cent. Among colored female policyholders, the mortality from these causes was 88.4 per 100,000 in 1911 and only 70.4 in 1916, which is a decline of 20.4 per cent. The consistent decline in mortality from these conditions which we observed among both white and colored policyholders is in marked contrast to the mortality figures for the general population included in the Registration Area of the United States. In the five years prior to 1916, the death rate from the diseases connected with childbearing have been practically stationary. There is in these comparisons a very strong endorsement of the Company's program of extending its facilities for public health nursing to women in childbirth. Any life conservation program which saves wives and mothers adds incalculably to the sum total of happiness and to the fibre of the race. The Company feels highly justified in emphasizing the value of its maternity service.

Metropolitan Life Insurance Company—Visiting Nurse Service. Analysis of Diseases and Conditions of the Puerperal State: Number of Cases, Per Cent of Total, Number of Visits, Average Visits per Case, and Average Nursing Days per Case by Color. 1916.

Color and sex; disease or condition	No. of cases	Per cent of Total Female Cases	No. of Visits	Average Av. Nurs- ing Days per Case	per Case
White and Colored Female					
Total puerperal state.....	41,572	25.8	243,738	5.9	7.9
Abortions and miscarriages..	3,469	2.2	19,511	5.6	7.5
Other accidents of pregnancy	483	.3	3,143	6.5	9.9
Pregnancy only	7,459	4.6	8,566	1.1	1.7
Pregnancy and after care....	1,552	1.0	12,582	8.1	25.6
After care only.....	23,896	14.9	151,502	6.3	7.5
Puerperal septicemia	967	.6	11,947	12.4	15.2
Puerperal albuminuria and convulsions	308	.2	3,101	10.1	15.1
Other diseases and conditions of the puerperal state.....	3,438	2.1	33,386	9.7	13.0
White Female					
Total puerperal state.....	37,483	27.1	220,827	5.9	7.8
Abortions and miscarriages..	3,102	2.2	17,497	5.6	7.5
Other accidents of pregnancy	420	.3	2,689	6.4	9.6
Pregnancy only	6,724	4.9	7,743	1.2	1.7
Pregnancy and after care....	1,379	1.0	11,236	8.1	25.6
After care only.....	21,496	15.5	136,732	6.4	7.5
Puerperal septicemia	859	.6	10,739	12.5	15.1
Puerperal albuminuria and convulsions	280	.2	2,795	10.0	14.8
Other diseases and conditions of the puerperal state.....	3,223	2.3	31,396	9.7	13.0
Colored Female					
Total puerperal state.....	4,089	18.1	22,911	5.6	8.1
Abortions and miscarriages..	367	1.6	2,014	5.5	8.2
Other accidents of pregnancy	63	.3	454	7.2	11.7
Pregnancy only	735	3.3	823	1.1	1.8
Pregnancy and after care....	173	.8	1,346	7.8	25.7
After care only.....	2,400	10.6	14,770	6.2	7.7
Puerperal septicemia	108	.5	1,208	11.2	15.8
Puerperal albuminuria and convulsions	28	.1	306	10.9	18.2
Other diseases and conditions of the puerperal state.....	215	1.0	1,990	9.3	13.4

NEW YORK MILK COMMITTEE

Report of an Experiment in Prenatal Care, 1912-1916

Problem: To promote intelligent motherhood; to reduce the number of stillbirths; to reduce the number of deaths under one month.

Purpose: To demonstrate a practical working method for reducing mortality in early weeks of life.

Expectant Mothers Enrolled: By canvass, by reference, by personal application.

Mothers Carried Through Experiment:

	U. S.	Italian	Hebrew	Irish	Others	Total
Multipara	346	1,130	626	101	571	2,774
Primipara	45	129	106	5	86	371
Total	391	1,259	732	106	657	3,145

Average Time Supervised: Antepartum, 3½ months; postpartum, 1 month.

Confinement: At home, by physician, 42 per cent; by midwife, 49 per cent; at hospital, 9 per cent.

Field: Nine districts—most congested sections—Borough of Manhattan.

Instructions Given: Individually, in home, ten day periods, by especially instructed nurses; medical cases by physician.

Character of Instruction and Supervision: Personal and Home Hygiene; Exercise, Work, Rest, Sleep; Diet and Feeding; Bowels and Urine; Clothing; Preparation for Confinement; Emergencies; Bathing; Breasts; Danger Signs; Value of Maternal Nursing; Care of New-born.

Staff: One physician, one supervising nurse, nine district nurses.

Duties: Clinical consultation, physical examination and treatment of expectant mothers for abnormal conditions. Medical supervision and care of mother and baby during first month after confinement. Registering baby at Milk Station. Co-ordination of the activities of the various agencies whose co-operation and services are needed for the well-being of the expectant mother and her family.

Central Office Control: Medical review of each case record; daily reports and control tabulations.

Results of experiment:

Number of babies born, 3,192; full term living births, 3,030; premature living births, 47; stillbirths, 115; deaths under one month, 86; deaths of mothers, 5.

Compared with Manhattan, same period:

	Living Births	Stillbirths		Deaths under one month	
		No.	Rate	No.	Rate
Supervised Cases...	3,077	115	36.0	86	27.9
Manhattan	349,688	16,886	46.1	13,621	39.0
Per Cent reductions ....		....	21.9	....	28.4

Maternal Mortality Rate—supervised cases, 1.5 per 1,000 mothers.

Maternal Mortality Rate—city at large, 4.9 per 1,000 mothers.

Reduction—69.4 per cent.

J. H. LARSON, *Secretary.*

PENNSYLVANIA

STARR CENTRE ASSOCIATION

Philadelphia

The prenatal work has progressed far beyond our expectations. While custom, prejudice, and superstition combine in a foreign-born population to retard the introduction of advanced ideas, yet the Centre has been unusually fortunate in obtaining the most gratifying co-operation.

This has been due largely to the splendid work of the prenatal nurse in charge, whose enthusiasm and devotion in the face of many discouragements have brought such success, that canvassing for cases is no longer necessary. Now in nearly every instance the expectant mother comes voluntarily to request supervision during this period.

Each mother under care has been visited in her home or seen at the Dispensary regularly from two to four times per month, and more frequently when necessary. At each such conference, a blood pressure reading has been taken and a specimen of urine analyzed. Careful individual instruction as to personal hygiene, diet, etc., has been given either by the nurse or by the physician at the weekly obstetrical clinics the total attendance at which during the year was 1,528.

One interesting and important feature of the work has been the provision of the layette for the new baby. The nurse furnishes the expectant mother with patterns for making the little garments in the simplest and most approved manner. Suitable materials are sold to the mother at wholesale price, and a daily instruction class is held where she may be taught how to make the little clothes, as well as how to bathe the baby, etc. The attendance at this class during the past year was 1,652. Our policy of selling baby clothes and materials for the same at wholesale price has proved very popular. It has not only attracted the mothers to us but has resulted in the babies being much better dressed.

Of 202 mothers receiving prenatal care during the past year, 103 were carried to confinement and received an average of 163 days' care each. There were 5 abortions, 2 premature births, and 99 full time births, including three sets of twins. There were 7 cases of difficult labor and 2 cases of hemorrhage, but no cases of eclampsia or Caesarean section and no maternal deaths. In fact in three years' work we have not had a single case of eclampsia nor even one maternal death.

Of the babies born, 94 were living at the end of the first month of life and all but two of these were breast fed.

We are still hoping to enlist the active interest of some friend who will supply the missing link in the chain of our work, that of obstetrical care. Our prenatal nurse labors unceasingly to protect the mother and her unborn child until delivery. Our postnatal department waits with outstretched hands to receive the newcomer, but a great break occurs at the vital point between prenatal and postnatal care.

If the Starr Centre were able to offer to our expectant mothers the services of a skilled obstetrician and a maternity nurse, this gap would be filled. The chain would then be complete and the scope of our work and helpfulness unlimited.

WILLIAM N. BRADLEY, M. D., *Medical Director.*

CARE OF CHILDREN OF PRE-SCHOOL AGE

KANSAS

CHRISTIAN SERVICE LEAGUE OF AMERICA

Wichita

Children under the care of the League, between the ages of two and six years are separated into two classes. First: Legal wards, who have been received for adoption or placement in foster homes. Second: Children who have been placed in our care by their parents for a limited period of time to be returned to them when advisable. All of these children are placed with governesses employed by us, where they are cared for under our supervision, and at our expense. Parents placing their children under our supervision, who are able to pay, are required to reimburse us.

One hundred and seven children of all ages, have been received as our wards during the last year, and a considerable number of needy and neglected children, who are not our wards, have been helped by our social service workers.

GEORGE L. HOSFORD, *General Superintendent.*

LOUISIANA

CHILD WELFARE ASSOCIATION

New Orleans

Children from three to six years of age attend clinics at the stations, the attendance of these children being secured by groups of volunteer workers. The nurse visits the home only in cases of illness.

MARY L. RAILY, *Director.*

MASSACHUSETTS

FLOATING HOSPITAL

Boston

The Boston Floating Hospital finished the summer season of 1917 on September 15, and September 25 started on the fall and winter work by re-opening a Health Clinic at Norfolk House, in the Roxbury section of Boston. The services of five nurses were used during the interim, so that every child discharged from the permanent wards was visited, as were cases from the day-patients which needed to be followed up.

The Health Clinic will take care of all the children referred from the Hospital, and supervise other children in the same families up to seven years of age. The age limit has been made seven years rather than five as we are paying particular attention to the diet of the children, teaching the mothers how to prepare simple and nutritious meals sufficient in quantity and in food value.

The Health Clinic is not alone for follow-up work among the Floating Hospital patients, but for any children not in need of dispensary treatment over one year of age referred by other agencies.

During the summer season organized classes were held for the mothers and for girls between eight and sixteen years of age. More mothers were reached and more interest was shown than at any time since this work was begun.

This has been due largely to the splendid work of the prenatal nurse in charge, whose enthusiasm and devotion in the face of many discouragements have brought such success, that canvassing for cases is no longer necessary. Now in nearly every instance the expectant mother comes voluntarily to request supervision during this period.

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During the past year, outside of clinic work, the Hospital co-operated with other agencies in establishing a food centre in one of the department stores in a thickly settled locality. During one week of the early summer lectures and demonstrations were given daily; two of these days were given over entirely to the study and preparation of food for young children. This work has been continued weekly through the summer by the Women's Municipal League, and we hope that arrangements can be made so that it will be permanent.

The Hospital has done nothing definite yet in organized work for the relief of mothers and children left alone on account of war conditions, but we expect to co-operate with the state and other existing organizations who have begun this work, and we wish to do everything in our power to help.

PAUL W. EMERSON, M. D.

SARAH A. EGAN, R. N., *Superintendent of Nurses.*

MICHIGAN

CLINIC FOR INFANT FEEDING

Grand Rapids

Our age limit is five years, up to that time we see that the eyes, nose, throat, etc., are given necessary attention, orthopedic difficulties corrected, the physician called when needed and correct diet ordered and, so far as we can, carried out.

MARGARET ROCHE, R. N., *Superintendent.*

NEW YORK DIET KITCHEN ASSOCIATION

See page 283 for report on care of children of pre-school age.

SPECIAL ACTIVITIES

MONTANA

STATE ASSOCIATION OF GRADUATE NURSES

Miss Margaret Hughes, R. N., of Helena, has been made Child Welfare Nurse under the direction of the State Board of Health. She is making a special effort to have births more accurately registered and with the aid of the Women's Clubs is having a survey made of the children under one year old to find out those who are not registered. A special effort is being made to prevent another epidemic of infantile paralysis and to assist in the after treatment of the little victims of last year.

In various parts of the state there is special work going on, not particularly identified with our Association, but done by nurses, such as school nursing, baby welfare work, etc.

This coming year we hope to have a closer co-operation with the club-women of the state and to do a more aggressive and definite work in all these lines.

IVA C. BENSON, *President.*

NEW YORK

BABIES WELFARE ASSOCIATION

New York City

The Babies Welfare Association is a federation of 134 organizations whose work directly or indirectly affects the welfare of babies. Its object is to further reduce the infant mortality by eliminating all waste of effort, and duplication of work. The work is directed by committees representing the various lines of work, and carried on by a Central Office which acts as a clearing house and information bureau.

WET NURSES

The wet nurse bureau has been further developed by the reporting of all women willing to act as wet nurses among the stillbirth cases referred to the Bureau of Child Hygiene, Department of Health. Wasserman tests have been made of all wet nurses before being used by the Babies' Welfare Association. In six months' time 20 per cent of the cases examined showed a positive Wasserman reaction, which seems to be sufficient ground for the stand taken by the Association in refusing to place any wet nurse who has not been submitted to this test.

AFTER CARE FOR BABIES UNDER ONE MONTH

The splendid co-operation of the maternity hospitals and district nurses in referring upon discharge their maternity cases for after care has increased steadily throughout the year. These babies are put under the immediate care of the nurses of the Baby Health Stations. Mothers coming from out of town to be confined in a New York hospital have been referred back to their local health officer for instruction and advice. Co-operation has been received from the local authorities or district nurses, who are always glad to follow up such cases and give the needed after care. Babies living outside the district covered by Baby Health Stations are referred during the summer months or if the cases are in need of special care, to the district nurses. The mothers of other babies are written to by the Babies' Welfare Association, urging them to take their baby at least once a month to the nearest Baby Health Station for information and advice despite the distance from their home.

SUMMARY OF YEAR'S WORK

General clearing house and information bureau maintained for the benefit of all organizations and individuals interested in baby welfare work.

Over eleven thousand cases handled through the Central Office for nurses and social workers.

General distribution of ice books for fifty organizations and the direction and supervision of the distribution of free ice for the ice companies.

Supervision and general direction of the city wide Baby Contest prior to Baby Week in 1916.

Full time of Executive Secretary given to work of Baby Week, enabling her to act as Executive Secretary of the Mayor's Committee for a period of six weeks.

Increase in office staff to meet the tremendous increase in the demands made upon the Association. 3,000 more cases handled than in 1915; calls received from 134 different organizations.

An additional temporary shelter opened by one of the Catholic day nurseries in response to the appeal sent out last spring showing the need of further provision for well children whose mothers are ill.

Organization and supervision of a temporary day nursery during the summer months for colored babies in the Columbus Hill Neighborhood, in co-operation with all the social organizations in the district.

Human interest stories showing the need of maternity insurance collected from the organizations doing prenatal and obstetrical work and used through the public press to rouse interest in the clause providing maternity benefits in the present Health Insurance Bill.

Revision of Infant Welfare Directory and distribution of same.

A series of warnings to mothers on the dangers of pneumonia published during February and March in the foreign and small local newspapers.

A series of local conferences planned throughout the City in order to promote better co-operation between the baby health stations and dispensaries.

Weekly reports containing infant mortality figures, baby health station records and information concerning the various phases of baby welfare work in New York City compiled and sent out each week to over six hundred organizations, doctors, nurses and social workers.

Statistics and information furnished to 65 cities.

MARY ARNOLD, *Executive Secretary.*

HENRY STREET SETTLEMENT

New York City

As the Henry Street staff of nurses is primarily concerned with the care of the sick, the report herewith submitted deals with morbidity studies of the results of nursing care in the homes.

During 1916, we had 29,105 patients under care. We nursed 3,081 women after child birth, and 2,731 new born babies. A study covering two years' work in the maternity nursing has been made dealing with 6,377 patients.

In the total number of these cases there were seven deaths, six from puerperal septicemia and one from puerperal albuminuria, while 94 were removed to the hospital and the final result not known.

We find that the Russians and Poles (including Hebrews) and other Slavic races predominate among the cases, while the Italians who compose the second largest group of cases in the general service use the maternity service least, and that of the cases of puerperal septicemia noted, over 50 per cent are Italian and five of the six deaths.

The number of women reported during pregnancy has increased greatly during the past year, a large number of them now reporting during the earlier months of pregnancy, fifth or sixth month, where formerly we did not get the cases until the eighth or ninth month.

Five thousand seven hundred and forty-four new born babies were cared for with a case fatality of 1.5 per cent during the first two weeks of their lives.

Of the 19,939 cases analyzed 44 per cent were children under five years of age, and 32 per cent of the total number were children under 24 months.

Among the children under five years, we find 405 cases of diarrheal diseases, and of these 322 were babies under 24 months. In contrast to this we had during the same year, 2,732 cases of pneumonia and broncho pneumonia, of which 1,744 were babies under 24 months. The small percentage of diarrheal diseases has been increasingly noticeable each year since the intensive infant welfare work in New York City was begun. Whereas eight years ago our heaviest work was during the summer months, we now find our largest number of cases during the first three months of the year. A report submitted by Henry Street to the Babies Welfare Association of New York, and published in their weekly bulletin of August 4, 1917, illustrates this fact very clearly with a chart.

Two important pieces of work that we have undertaken since the war, and bearing a direct relation to it, are the maternity protection experiment in co-operation with the Women's City Club, of which a report has already been given and a course in Public Health Nursing for third year pupil nurses.

At this time when there is such a tremendous demand for trained public health nurses, it is gratifying to note the splendid response that is being made by the hospital training schools to increase their classes so as to throw out into the field a larger number of women, qualified to meet the present great need.

In order to make it possible for the hospitals to train more nurses, the Henry Street Settlement has offered to co-operate with schools of recognized standing and provide a four months' course in Public Health Nursing to a number of third year pupils; giving housing and maintenance in addition to the training, thus making it possible for the schools to increase the number of pupils without necessarily lengthening the course of training or adding to their equipment. Up to the present time we have had definite applications from four hospitals, for twelve of their pupils, and communications from two others who have the matter under consideration. This course is in addition to the obstetrical training given in Zone 7, and to the regular course given to graduate nurses in affiliation with Teachers' College.

Thus by these two measures Henry Street is endeavoring not only to conserve infant life in New York City, but to train as many nurses as possible to carry on this work elsewhere.

REBECCA SHATZ, R. N., *Associate Director of Nurses.*

NATIONAL COMMITTEE FOR THE PREVENTION OF BLINDNESS

New York City

General Report

The Committee has prepared its annual table showing the proportion of newly admitted pupils blind from ophthalmia neonatorum in the state schools for the blind in this country:

Proportion of Pupils Newly Admitted to Schools for the Blind During the Past Ten Years, Who Are Blind from Ophthalmia Neonatorum.				
School year	No. of schools	Total new admissions	Pupils blind from O. N.	Per cent.
1907-08.....	10	290	77	26.5
1908-09.....	14	300	68	22.6
1909-10.....	13	325	67	20.6
1910-11.....	15	351	84	23.9
1911-12.....	24	455	88	21.2
1912-13.....	21	386	88	22.7
1913-14.....	19	428	84	19.6
1914-15.....	28	602	91	15.1
1915-16.....	35	666	127	19.0
1916-17.....	34	647	119	18.4

When the New York State Committee for the Prevention of Blindness (now a standing committee of the national organization) began its active campaign against the ravages of ophthalmia neonatorum in 1908, it did not expect to find any marked decrease in the percentage of children admitted to schools for the blind who had lost their sight from this disease until such time as those born after the new educational campaign was well under way should reach school age. That the ten years recorded show a decrease of 8.1 per cent is well worthy of note. That 18.4 per cent of those newly admitted are blind from ophthalmia neonatorum shows that much work remains to be done, and that no state can afford to relax its vigilance. The Committee has been well represented in the campaign of the states contemplating new or additional legislation. It has carried on extensive field work in Minnesota, North Carolina, Georgia and Florida.

During the past year the demand for simple Baby Week literature has been greater than ever before. As its special 1917 contribution the Committee prepared a Baby Week pamphlet—"Bright Eyes, How to Keep Them Shining!" The first two editions of 20,000 copies each were exhausted before the date set for the National Baby Week campaign. This necessitated the printing of a third edition of 20,000 to meet current demands. One state alone distributed 10,000 copies at the Teachers' Institute.

The Committee has realized the necessity of instructing the "Little Mothers" in the protection of the eyes of the younger children of the family. To this end, it has arranged story talks for the purpose of instilling simple hygienic principles in a manner interesting to little people.

EDWARD M. VAN CLEVE, *Managing Director.*

PENNSYLVANIA

BABIES' WELFARE ASSOCIATION

Philadelphia

The Babies' Welfare Association was organized March 30, 1914, to make possible more definite co-operation among baby welfare agencies and institutions in Philadelphia and to increase the efficiency of the work of these agencies and institutions.

Today there are in Philadelphia 132 agencies interested in the welfare of babies which are active members of the Babies' Welfare Association.

During the past winter the various sub-committees of the Association were actively interested in the problems pertaining to their own particular field and formulated many constructive plans and suggestions.

The Committee on Prenatal Work devised a uniform blank in order that all hospitals and institutions may adopt it for the purpose of systematizing the work throughout the city, and for statistical purposes.

A record blank has also been formulated for the use of Social Service Departments that they may have a complete history of all cases followed—the prenatal, the natal, and the postnatal record—until the infant is at least one month old.

The results of the survey made of the prenatal work accomplished in Philadelphia in 1915 were so encouraging that the Committee determined to make a similar survey yearly. The results of the survey of 1916 were compiled and sent to all agencies interested and also to the Children's Bureau, Washington, to be used by them for statistical purposes. Every effort is being made by the Committee for the establishment of obstetrical clinics and prenatal work wherever maternity cases receive care.

The Committee on Health Centers after studying the methods of record keeping in clinics, formulated a record card for use in Health Centers.

WET NURSES

The Committee on Wet Nursing Directory believing in the great importance of infants being breastfed, but realizing the fact that many babies are now being wet nursed by women, the state of whose health has not been determined, felt that a definite standard of requirements should be formulated for the protection of both nurse and baby. After a careful laboratory investigation the following recommendations were made for the protection of both nurse and baby, and adopted by the Babies' Welfare Association:

The Babies' Welfare Association hereby recommends that applicants for wet nursing shall have their blood tested for the Wasserman reaction, at least two antigens being used, and if a doubtful reaction is obtained, that the applicant be rejected.

The same recommendation is made in reference to infants to be wet nursed.

It is further recommended that an examination of each applicant for wet nursing be made that shall include a bacteriological examination for gonorrhoea; a physical examination, especially for tuberculosis, and the presence of communicable skin diseases; and a special inquiry to be made as to alcoholism.

It is further recommended that all hospitals, institutions, or social agencies furnishing or employing wet nurses or caring for infants to be wet nursed be required to adopt the foregoing standard.

These recommendations have been approved by the College of Physicians, Philadelphia County Medical Society, Philadelphia Pediatric Society, and by the syphilographers, obstetricians, pathologists, pediatricists of our medical schools to whom they were submitted. The recommendations were also adopted by the Board of Health as presented.

ELIZABETH HOFFMAN, *Assistant Secretary.*

WISCONSIN

MILWAUKEE INFANT'S HOSPITAL

Milwaukee

The hospital cares for sick children under two years, not suffering from communicable diseases, maintains a training school for nursery maids, and gives a post graduate course to nurses.

The preventive and educational work done through the out-patient department, which was opened a year ago, has been successful. There are two conference days a week. During the past year, 75 babies under two years received care in this department, making a total of nearly 300 visits. 75 per cent of these patients had previously received care in the hospital. The remainder were referred by outside agencies.

The efforts of the department have been directed along two particular lines. First, that of keeping in more personal touch with the individual patient by having the follow-up work in the homes performed by the same nurse that meets the patient at the bi-weekly conference. Second, a persistent instruction on the importance of maternal nursing.

In future the social nurse will, as far as possible, supervise the health of the children between two years and school age.

During the past year, 946 visits were made to homes.

Number of babies cared for in hospital: 1916, 125; 1917, 207.

Budget: 1916, \$8,527.68; 1917, \$13,000.00.

NAN DINNEEN, R. N., *Superintendent.*

AMERICAN ASSOCIATION FOR STUDY AND PREVENTION OF INFANT MORTALITY

MEMBERSHIP LIST, 1917

Honorary

France

Bertillon, Dr. Jacques. Paris

GENERAL MEMBERSHIP

LIFE MEMBERS

Davidson, Mr. Walter, Milwaukee
Ford, Miss Stella D., Detroit
"Friend," Milwaukee
"Friend," Milwaukee
Gammell, Mr. William, Providence
Gitchell, Miss Katherine, Akron
Hanna, Mr. and Mrs. H. M., Cleveland
Holt, Dr. L. Emmett, New York City
Horlick, Mr. A. J., Racine
Kleckhofer, Mr. F. A. W., Milwaukee
Knox, Mrs. J. H. Mason, Jr., Baltimore
Knox, Miss Katherine Bowdoin, Baltimore
Knox, J. H. Mason, 3rd, Baltimore
Mellon, Mr. A. W., Pittsburgh
Oliver, Mr. Wm. B., Baltimore
Pfister, Mr. Charles F., Milwaukee
Russell, Mrs. Marshall, Southampton, L. I.
Stern, Mr. Walter, Milwaukee
Stotesbury, Mrs. Edward T., Philadelphia
Volker, Mr. William, Kansas City, Mo.
Wade, Mr. and Mrs. J. H., Cleveland
White, Mr. R. J., Baltimore
I. W.

AFFILIATED MEMBERSHIP

Canada

HAMILTON
Babies' Dispensary Guild
MONTREAL
University Settlement Milk Station

OFFICIAL DELEGATE

Miss Helen R. Macdonald
Miss Kate Carr

California

SAN FRANCISCO
Certified Milk and Baby Hygiene Committee of the
California Association of Collegiate Alumnae

Connecticut

NEW HAVEN
Infant Welfare Association

Dr. Joseph Linde
Miss Abby Gilbert
Miss Mary Curran

WATERBURY
Visiting Nurse Association

Miss Edith Madeira

District of Columbia

WASHINGTON
Columbia and Children's Alumnae Association
Diet Kitchen Association
Graduate Nurses' Association of the District of Columbia
Instructive Visiting Nurse Society

Miss Mary Gwynn
Dr. Joseph Wall
Miss Estelle L. Wheeler

Florida

JACKSONVILLE
Infant Welfare Society of Jacksonville
State Board of Health

Georgia**AUGUSTA**

Georgia State Association of Graduate Nurses

COLUMBUS

City Federation of Women's Clubs

Mrs. Isadore Hermann

Hawaii**HONOLULU**

Central Committee on Child Welfare

District Nursing Department, Palama Settlement

Illinois**CHICAGO**

Infant Welfare Society

Mothers' Aid of the Chicago Lying-In Hospital and Dispensary

Woman's Club

Dr. Henry F. Helmholtz

Miss Minnie H. Ahrens

Mrs. Frederick A. Lorenz

LA SALLE

Infant Welfare Station (Emma Matthieson Chancellor Memorial)

Indiana**EVANSVILLE**

Babies' Milk Fund Association

Mrs. Mary C. Trimble

INDIANAPOLIS

Children's Aid Association

Iowa**SIOUX CITY**

State Association of Registered Nurses

Kansas**WICHITA**

Christian Service League

Kentucky**LEXINGTON**

Baby Milk Supply Association

LOUISVILLE

Babies' Milk Fund Association

Kentucky State Association of Graduate Nurses

Miss Elisabeth Shaver

Louisiana**NEW ORLEANS**

Child Welfare Association

Miss Mary L. Ralley

Maryland**BALTIMORE**

Council, Milk and Ice Fund

Department of Health

Maryland Association for Study and Prevention of Infant

Mortality

(Babies' Milk Fund Association)

Miss M. F. Etchberger

Miss Eleanor Parker

CUMBERLAND

Baby Welfare Section of Civic Club of Cumberland

Massachusetts**BOSTON**

Baby Hygiene Association

Children's Aid Society

Children's Friend Society

Committee on Prenatal and Obstetrical Care, Women's

Municipal League

Floating Hospital

Instructive District Nursing Association

Massachusetts Milk Consumers' Association

Massachusetts Society for the Prevention of Cruelty to

Children

Massachusetts State Department of Health

Maverick Dispensary

Society for Helping Destitute Mothers and Infants

Dr. J. Herbert Young

Miss Fannie E. Barnes

Mrs. Wm. Lowell Putnam

Miss Sarah A. Egan

Mrs. Wm. Lowell Putnam

Mr. C. C. Carstens

Dr. Lyman A. Jones

BROOKLINE

Infant Welfare Clinic of the Brookline Friendly Society

CAMBRIDGE

Avon Home

GARDNER

Massachusetts Branch Nat. Congress of Mothers and
Parent-Teacher Association

GREAT BARRINGTON

Visiting Nurse Association

HOLYOKE

Infant Hygiene Association

Dr. E. P. Bagg, Jr.

LEXINGTON

Unity Lend-a-Hand Society

SPRINGFIELD

Visiting Nurse Association

Michigan**BATTLE CREEK**

Alumnae Association Battle Creek Sanitarium Training

Miss Charlotte Hoffman

School for Nurses

Michigan Sanitarium and Benevolent Association

Miss Charlotte Hoffman

Race Betterment Foundation

DETROIT

Babies' Milk Fund

Dr. T. B. Cooley

Children's Free Hospital Association

Farrand Training School Alumnae Association

Dr. T. B. Cooley

Visiting Nurse Association

GRAND RAPIDS

Clinic for Infant Feeding

Miss Mary M. Roche

Michigan State Nurses' Association

Dr. Collins H. Johnston

ST. JOSEPH

Michigan Children's Home Society

Minnesota**DULUTH**

Infant Welfare Department Duluth Consistory Scottish

Mr. T. W. Hugo

Rite Masons

MINNEAPOLIS

Infant Welfare Society

ST. PAUL

Baby Welfare Association

Mrs. M. B. Lettice

Minnesota Public Health Association

Missouri**ST. LOUIS**

Children's Hospital

Missouri State Nurses' Association

Pediatric Society

Visiting Nurse Association

Montana**HELENA**

Child Welfare Association

Montana State Association of Graduate Nurses

New Hampshire**BERLIN**

Berlin Mills Company's District Nurse

MANCHESTER

Infant Aid Association

New Jersey**ATLANTIC CITY**

Child Federation

EAST ORANGE

Baby Welfare Association of the Oranges

Mr. John Hall

Free Public Library

Mrs. L. J. Gemmell

ELIZABETH

Visiting Nurse Association

HADDONFIELD

New Jersey Congress of Mothers

JERSEY CITY

Division of Child Hygiene, Health Bureau

Dr. M. W. O'Gorman

MONTCLAIR

Board of Health

NEWARK

Babies' Hospital

Dr. E. W. Murray

Babies' Hospital Milk Dispensary

ORANGE

Diet Kitchen of the Oranges

New York**ALBANY**

School for Mothers

AMSTERDAM

Infants' and Childs' Welfare League

BATAVIA

Child Welfare Association

BINGHAMTON

Child Welfare Association

BROOKLYN

Bureau of Charities District Nursing Committee

Children's Aid Society

Pediatric Society

BUFFALO

District Nursing Association

GLOVERSVILLE

Municipal Mothers' Club

NEW YORK

American Nurses' Association

Miss Minnie H. Ahrens

Babies' Dairy Association

Babies' Hospital

Miss Mary Arnold

Babies' Welfare Association

Berwind Free Maternity Clinic

Camp Fire Girls

Children's Welfare Division Bellevue Hospital Social

Service Department

Miss Rebecca Shatz

Henry Street Settlement

Jacobi Hospital for Children

Metropolitan Life Ins. Co., Industrial Dept.

National Committee for the Prevention of Blindness

National League of Nursing Education

National Organization for Public Health Nursing

Miss Ella Phillips Crandall

New York Association for Improving Condition of the Poor

Bureau of Educational Nursing

Miss C. R. Price

New York Diet Kitchen Association

New York Milk Committee

Mr. J. H. Larson

New York State Charities Aid Association Sub-Committee

on Mothers and Infants

New York State Nurses' Association

NIAGARA FALLS

Child Welfare Association

RIVERDALE-ON-HUDSON

Health League

ROCHESTER

Bureau of Health

TONAWANDA

Civic Health League

UTICA

Baby Welfare Committee

North Carolina**RALEIGH**

State Board of Health

Ohio**CINCINNATI**

Children's Clinic of the Ohio-Miami Medical College

Home for the Friendless and Foundlings

Jewish Infant Welfare Circle

Visiting Nurse Association

CLEVELAND

Babies' Dispensary and Hospital

Dr. J. H. Gerstenberger

Board of Health

Dr. R. A. Bolt

Day Nursery and Free Kindergarten Association

Graduate Nurses' Association

Visiting Nurse Association

COLUMBUS

Instructive District Nursing Association

TOLEDO

Ohio State Association of Graduate Nurses

District Nursing Association

Pennsylvania**BRYN MAWR**

Bryn Mawr College Library

PHILADELPHIA

Association of Day Nurseries
 Babies' Hospital
 Babies' Welfare Association
 Child Federation
 Children's Aid Society of Pennsylvania
 Pediatric Society
 Starr Centre Association

Dr. Wm. N. Bradley
 Dr. H. C. Carpenter
 Dr. S. McC. Hamill

READING

Visiting Nurse Association

YORK

Visiting Nurse Association

Miss Anna M. L. Huber
 Miss Netta Ford

Philippine Islands**MANILA**

Liga Nacional Filipina para la Proteccion de la Primera
 Infancia

Rhode Island**EDGEWOOD**

R. I. Branch National Congress of Mothers and Parent-
 Teacher Assn.

PROVIDENCE

District Nursing Association

Miss Alice Hall

Utah**SALT LAKE CITY**

Ladies' Literary Club
 Utah Congress of Mothers

Washington**SEATTLE**

Health Department

Wisconsin**BELOIT**

Visiting Nurse Association

MILWAUKEE

Child Welfare Committee of the Milwaukee Chapter
 Daughters of the American Revolution
 Children's Free Hospital
 Infant's Hospital
 Marquette Woman's League
 Marquette University School of Medicine
 Milwaukee Hospital
 Milwaukee Maternity Hospital and Free Disp. Assoc.
 Wisconsin Anti-Tuberculosis Association
 Wisconsin Branch National Congress of Mothers and
 Parent-Teacher Assoc.
 Visiting Nurse Association
 Woman's Fortnightly Club

OSHKOSH

Twentieth Century Club

RIPON

Study Club

STEVENS POINT

Woman's Club

GENERAL MEMBERSHIP**China**

Griscom, Dr. Mary W.....David Gregg Hospital, Canton
 Hume, Dr. Edward H.....The Yale Hospital, Changsha

New Zealand

Jenkins, Mr. William.....850 Cumberland St., Dunedin

Canada

Babies' Disp. Guild (Amf.).....12 Euclid Ave., Hamilton, Ontario
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 Brown, Dr. Alan.....440 Avenue Road, Toronto

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MacMurchy, Dr. Helen, Inspector of Feeble-Minded, Dept. of the Provincial Secretary	Toronto
McCullough, Dr. J. W., Sec'y., Provincial Board of Health	Toronto
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Milk Station, University Settlement (Aml.)	Montreal
Mullin, Dr. R. H., Vancouver General Hospital	Vancouver, B. C.
Norman, Dr. T. J., Prov. Board of Health	Edmonton, Alberta
Pelletier, Dr. Elzear, Sec'y. Board of Health	Quebec

Hawaii

Central Committee on Child Welfare (Aml.)	Honolulu
District Nursing Department	
Palama Settlement (Aml.)	Honolulu
Frear, Mrs. Walter	1434 Punahon St., Honolulu
Pratt, Dr. J. S. B., Sec'y. Territorial Board of Health	Honolulu

Panama

Brakemeler, Miss Louise, National Red Cross	Panama City
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Philippine Islands

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Liga Nacional Filipina para la Proteccion de la Primera Infancia (Aml.)	423 San Pedro, Qulapo, Manila

Alabama

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Perkins, Miss Charlotte E., Supt. The Children's Hospital	Birmingham
Snyder, Dr. J. Ross	Woodward Bldg., Birmingham

Arizona

Tarr, Dr. Earl Mendum	Goodrich Bldg., Phoenix
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California

Ainley, Dr. F. C.	1118 Brockman Bldg., Los Angeles
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Certified Milk and Baby Hygiene Com. Cal. Assn. of Collegiate Alumnae (Aml.)	San Francisco
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Fleischner, Dr. E. C.	350 Post St., San Francisco
Franklin, Miss H. Grace	521 S. Figueroa St., Los Angeles
Goethe, Mr. C. M.	Nicolaus Bldg., Sacramento
Goodrich, Mrs. C. S.	1840 Broadway, San Francisco
Gray, Mr. R. S.	Commonwealth Club, San Francisco
Haynes, Dr. J. R.	429 Cons. Realty Bldg., Los Angeles
Horsburgh, Mrs. Jas., Jr.	2900 Devisadero St., San Francisco
Hoyt, Mr. R. N., State Health Officer, Central Coast Director	City Hall, San Jose
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King, Dr. C. L.	70 S. Euclid Ave., Pasadena
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Porter, Dr. R. L.	240 Stockton St., San Francisco
Powers, Dr. L. M., Commissioner of Health	Los Angeles
Sawyer, Dr. Wilbur A.	3123 T Street, Sacramento
Smith, Dr. Dudley	Hotel Oakland, Oakland
Strietmann, Dr. Wm. H.	221 Central Bk. Bldg., Oakland
Thum, Mr. William	Pasadena
Willits, Dr. Emma K.	Galen Bldg., San Francisco

Colorado

Amesse, Dr. J. W.	452 Metropolitan Bldg., Denver
Gengenbach, Dr. Frank P.	906 Metropolitan Bldg., Denver
Gilman, Mr. A. E.	Univ. of Colorado, Boulder
Jones, Dr. S. Fosdick.	716 Metropolitan Bldg., Denver
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Connecticut

Bartlett, Mrs. C. J.	183 Bishop St., New Haven
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Bolling, Mrs. R. C.	Greenwich
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Bronson, Miss J. C.	438 Whitney Ave., New Haven
Camp, Mr. W. H.	43 E. Main St., Waterbury
Carnalt, Dr. W. H.	261 St. Ronan St., New Haven
Darrach, Dr. Wm.	R. F. D. 28½ Cos Cob
Farnam, Mr. H. W.	43 Hillhouse Ave., New Haven
Fisher, Prof. and Mrs. Irving	460 Prospect St., New Haven
Goodenough, Dr. E. W.	44 Leavenworth St., Waterbury
Goodrich, Dr. C. A.	5 Haynes St., Hartford
Gregory, Mrs. A. W.	63 Gillett St., Hartford
Greenway, Dr. James C.	Greenwich
Hillyer, Mrs. A. R.	91 Elm St., Hartford
Infant Welfare Association (Affil.)	200 Orange St., New Haven
Linde, Dr. Joseph I.	163 York St., New Haven
Mead, Dr. Kate C.	165 Broad St., Middletown
Platt, Mrs. Orville H.	Washington
Reitger, Mr. Leo. F.	198 Edwards St., New Haven
Reynolds, Dr. Harry S.	195 Church St., New Haven
Rockefeller, Mrs. P. A.	Greenwich
Slemons, Dr. J. Morris	Yale Medical School, New Haven
Steele, Dr. H. Merriman	226 Church St., New Haven
Steiner, Dr. W. R.	4 Trinity St., Hartford
Visiting Nurse Association (Affil.)	37 Central Ave., Waterbury
Winslow, Prof. C-E. A.	Yale Medical School, New Haven

Delaware

Wales, Dr. G. T.	Delaware & Woodland Aves., Wilmington
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District of Columbia

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Calvin, Mrs. Henrietta W., Specialist in Home Economics, Bureau of Education	Washington
Columbia and Children's Alumnae Assn. (Affil.)	Washington
Davis, Dr. Wm. H., Chief Statistician, Division of Vital Statistics, Bureau of the Census	Washington
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Graduate Nurses' Assn. of the District of Columbia (Affil.)	1337 K St., N. W., Washington
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Instructive Visiting Nurse Society (Affil.)	2506 K St., N. W., Washington
Johnson, Miss Helen Louise	1410 H St., N. W., Washington
Kerr, Dr. J. W., U. S. Public Health Service	Washington
Koher, Dr. G. M.	1819 Q St., N. W., Washington
La Forge, Miss Zoe, Federal Children's Bureau	Washington
Langworthy, Mr. C. F., Dept. of Agriculture	Washington
Laplin, Mr. R. C., Bureau of the Census	Washington
Lathrop, Miss Julia C., Chief, Federal Children's Bureau	Washington
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Washington Diet Kitchen Assn. (Aml.).....	Washington
West, Mrs. Max, Federal Children's Bureau.....	Washington
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Woodward, Dr. Wm. C., Commissioner of Health.....	Washington

Florida

Infant Welfare Society (Aml.).....	Jacksonville
State Board of Health (Aml.).....	Jacksonville

Georgia

City Federation of Women's Clubs (Aml.).....	1700 Fourth Ave., Columbus
Georgia State Assn. of Graduate Nurses (Aml.).....	Augusta
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Block, Mr. E. J.....	Care Inland Steel Co., Chicago
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Burling, Mrs. Edward.....	Hubbard Woods
Casselberry, Mrs. Lillian H.....	1830 Calumet Ave., Chicago
Churchill, Dr. F. S.....	1259 N. State St., Chicago
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Drake, Dr. C. St. Clair, Sec'y. State Board of Health	Springfield
Dunn, Mrs. Morrill.....	125 E. Chestnut St., Chicago
Farwell, Mrs. Fanny D.....	Lake Forest
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Grau, Mrs. Phil. A.....	925 Elmwood Ave., Wilmette
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Heyworth, Mrs. James O.....	Lake Forest
Hilton, Mr. Henry H.....	2301 Prairie Ave., Chicago
Hoffman, Dr. W. H. O.....	114 E. Walter Place, Chicago
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Infant Welfare Society (Aml.).....	104 S. Michigan Ave., Chicago
Jordan, Prof. Edwin O.....	Univ. of Chicago, Chicago
LaSalle Infant Welfare Station (Emma M. Chancellor Memorial) (Aml.).....	La Salle
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McCormick, Mrs. Harriet H.....	50 E. Huron St., Chicago
McCormick, Mrs. Medill.....	500 Diversey Parkway, Chicago
Meyer, Mr. Alfred C.....	843 W. Adams St., Chicago
Michael, Dr. May.....	4625 Prairie Ave., Chicago
Milligan, Dr. Josephine.....	610 W. State St., Jacksonville
Mothers' Aid of the Chicago Lying-in-Hospital, and Dispensary (Aml.).....	Chicago
Monroe, Mrs. Wm. S.....	64 E. Elm Street, Chicago
Perkins, Mrs. H. F.....	6106 Kenmore Ave., Chicago
Pool, Mrs. R. H. Elsinore.....	Lake Forest
Rosenwald, Mr. Julius.....	Care Sears, Roebuck & Co., Chicago
Scott, Mrs. Fredk. H.....	175 Sheridan Road, Hubbard Woods
Scott, Mrs. Robert L.....	Evanston
Shaw, Mrs. Howard Van Doren.....	1130 Lake Shore Drive, Chicago

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Teter, Mr. Lucius	5637 Woodlawn Ave., Chicago
Towne, Mrs. John D.	1004 Greenwood Blvd., Chicago
Tyson, Mrs. Russell	20 E. Geothel St., Chicago
Wheeler, Miss Ruth, University of Illinois	Urbana
Woman's Club (Affil.)	410 S. Michigan Ave., Chicago
Welles, Mrs. Edward P.	Hinsdale
Winterbotham, Mr. John A.	226 S. La Salle St., Chicago
Winholt, Dr. W. F.	2001 California Ave., Chicago

Indiana

Babies' Milk Fund Association of Evansville (Affil.)	Evansville
Burckhardt, Dr. Louis	Hume-Mansur Bldg., Indianapolis
Children's Aid Assn. (Affil.)	62 Baldwin Block, Indianapolis
Hurty, Dr. J. N., Sec'y. State Board of Health	Indianapolis
Mumford, Dr. E. B.	504 Newton-Claypool Bldg., Indianapolis
Rappaport, Mr. Leo M.	822 Law Bldg., Indianapolis
Schweitzer, Dr. A. L.	Care Children's Bureau, Gary
Trimble, Mrs. Mary C., Supervisor, Babies' Milk Fund Assn.	Evansville

Iowa

Ballantyne, Miss Charlotte	1169 9th St., Des Moines
Byfield, Dr. Albert H., State University of Iowa	Iowa City
Christ, Dr. Jennie G.	Ames
Iowa State Assn. of Graduate Nurses (Affil.)	Cedar Falls
Meanes, Dr. Leuna L.	Securities Bldg, Des Moines
Olsen, Miss Anna M., Division of Home Economics, State College	Ames
Perkins, Mrs. M. Russell	Burlington
Sinclair, Miss Amy	800 Second Ave., Cedar Rapids
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Kansas

Abbey, Dr. Frank L.	Newton
Christian Service League of America (Affil.)	Wichita
Cretcher, Miss Martha C.	Scott City
Devilbiss, Dr. Lydia A., Chief, Division of Child Hygiene, State Department of Health	Topeka
Knowlton, Captain Millard, State Board of Health	Topeka
Menninger, Dr. C. F.	727 Kansas Ave., Topeka
Sherbon, Dr. Florence B., Asst. Director, Division of Child Hygiene, State Board of Health	Topeka
Thomas, Mrs. Charles B.	913 Polk St., Topeka

Kentucky

Babies' Milk Fund Assn. (Affil.)	215 E. Walnut St., Louisville
Baby Milk Supply Assn. (Affil.)	Lexington
Barbour, Dr. Philip F.	Louisville
Belknap, Mrs. Morris A.	R. R. No. 1, Box 57-G, Louisville
Fulton, Dr. Gavin	600 Atherton Bldg., Louisville
Kentucky State Assn. of Graduate Nurses (Affil.)	Louisville
Morton, Mrs. David	Glenview, Louisville
Shaver, Miss Elisabeth, Supt. Babies' Milk Fund Assn.	Louisville
Smith, Mrs. Letchworth	E. F. D. No. 1, Louisville

Louisiana

Butterworth, Dr. W. W., Tulane University	New Orleans
Child Welfare Assn. (Affil.)	Maison Blanche Bldg., New Orleans
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Railey, Miss Mary L., Director, Child Welfare Assn.	Maison Blanche Bldg., New Orleans

Maine

Moore, Dr. Roland B.	66 Deering St., Portland
Webster, Dr. F. P.	Portland
Young, Dr. A. G., Sec'y. State Board of Health	Augusta

Maryland

Abercrombie, Dr. R. T.	Homewood Apts., Baltimore
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Baby Welfare Section, Civic Club of Cumberland (Aml.)	Cumberland
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Birkhead, Rev. Dr. Hugh	18 W. Read St., Baltimore
Bliss, Mrs. Wm. J. A.	1017 St. Paul St., Baltimore
Bonaparte, Mr. Charles J.	Center St. and Park Ave., Baltimore
Bowdoin, Mrs. W. G.	1108 N. Charles St., Baltimore
Buck, Mrs. R. B.	1228 St. Paul St., Baltimore
Carman, Dr. R. P.	1701 N. Caroline St., Baltimore
Cary, Mr. R. L.	1312 Munsey Bldg., Baltimore
Cone, Dr. Claribel	The Marlborough, Baltimore
Cook, Mrs. George H.	1001 St. Paul St., Baltimore
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Council, Milk and Ice Fund (Aml.)	Baltimore
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Gibbs, Mrs. Rufus M.	1209 St. Paul St., Baltimore
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Health Department (Aml.)	Baltimore
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Hochschild, Mrs. Max	1922 Eutaw Place, Baltimore
Hooker, Dr. D. R.	Upland, Roland Park
Hooper, Mrs. Jas. E.	St. Paul and 23rd Sts., Baltimore
Howland, Dr. John, Johns Hopkins Hospital	Baltimore
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Knipp, Miss Gertrude B.	1821 Park Ave., Baltimore
Knipp, Dr. Harry E.	Fremont and Lanvale Sts., Baltimore
Knox, Dr. J. H. M.	The Severn Apts., Baltimore
Knox, Mrs. J. H. M., Jr.	Guliford
Knox, Miss Katherine Bowdoin	Guliford
Knox, J. H. M., III	Guliford
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Levering, Mr. Joshua	707 Keyser Bldg., Baltimore
Lockwood, Dr. Wm. F.	8 E. Eager St., Baltimore
McLanahan, Mr. Austin	Alex. Brown & Sons, Baltimore
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Maryland Assn. for Study and Prevention of Infant Mortality (Babies' Milk Fund Assn.) (Aml.)	Baltimore
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Poultney, Mrs. Wm. D.	Chattolance
Ramsay, Mr. John B.	1218 St. Paul St., Baltimore
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White, Mr. Richard J.	10 South St., Baltimore
Whitridge, Mrs. Susan M.	818 University Parkway, Baltimore
Whitridge, Mrs. John	Brooklandville
Wight, Mrs. John H.	Garrison
Williams, Dr. J. Whitridge	1128 Cathedral St., Baltimore

Massachusetts

Adrianse, Dr. Vanderpoel	Williamstown
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Avon Home (Afil.)	689 Massachusetts Ave., Cambridge
Baby Hygiene Assn. (Afil.)	296 Boylston St., Boston
Beard, Miss Mary, Director Instructive District Nurs. Assn.	Boston
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Boston Children's Aid (Afil.)	43 Hawkins St., Boston
Boston Floating Hospital (Afil.)	54 Devonshire St., Boston
Bowditch, Dr. Henry I.	416 Marlboro St., Boston
Brackett, Mr. Jeffery R.	41 Marlboro St., Boston
Brayton, Miss Alice	294 Prospect St., Fall River
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Committee on Prenatal and Obstetrical Care, Women's Municipal League of Boston (Afil.)	Boston
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Cutler, Mr. Elliott C.	Brookline
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Davis, Mr. Michael M., Jr.	25 Bennet St., Boston
Davis, Dr. Nelson C.	494 Rutherford Ave., Boston
DeNormandie, Dr. Robert L.	357 Marlboro St., Boston
Denny, Dr. F. P.	111 High St., Brookline
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Durant, Mrs. C. T.	Great Barrington
Egan, Miss Sarah A.	54 Devonshire St., Boston
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Eustis, Mr. R. S.	329 Beacon St., Boston
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Infant Hygiene Association (Afil.)	Holyoke
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Jackson, Dr. D. L.	362 Commonwealth Ave., Boston
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Lee, Mr. Joseph	101 Tremont St., Boston
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Leanned, Dr. Wm. T.	Fall River
Mason, Mrs. Charles E.	Readville
Mason, Mr. Charles E.	30 State St., Boston

Maverick Dispensary (Aml.)	18 Chelsea St., East Boston
Mass. Milk Consumers' Assn. (Aml.)	49 Beacon St., Boston
Mass. Branch Nat. Congress of Mothers and Parent-Teacher Assn. (Aml.)	Gardner
Mass State Department of Health (Aml.)	Boston
Morse, Dr. John Lovett	70 Bay State Road, Boston
Murphy, Miss Alice, R. N., Chief Nurse District Nursing Assn.	Stoughton
Mass. Society for the Prevention of Cruelty to Children (Aml.)	43 Mt. Vernon St., Boston
Page, Dr. Calvin Gates	128 Marlboro St., Boston
Percy, Dr. Karlton G.	259 Beacon St., Boston
Putnam, Mrs. Wm. Lowell	49 Beacon St., Boston
Ratigan, Mr. Thomas H.	65 Kilby St., Boston
Reese, Mrs. D. H.	Uxbridge
Richardson, Miss Margaret H., R. N.	28 Appleton St., Boston
Riggs, Dr. Austin Fox	Stockbridge
Robbins, Mr. Chas. H.	261 Franklin St., Boston
Rosenau, Dr. Milton J., Harvard Medical School	Boston
Rotch, Mrs. Wm. J.	New Bedford
Sanford, Miss Kate I.	Taunton
Shackford, Miss Martha H., Wellesley College	Wellesley
Sherwood, Miss Margaret P., Wellesley College	Wellesley
Shuman, Mr. A.	Shuman Corner, Boston
Smith, Dr. Richard M.	329 Beacon St., Boston
Society for Helping Destitute Mothers and Infants (Aml.)	Boston
Strong, Miss A. H.	561 Mass. Ave., Boston
Swift, Dr. John B.	419 Beacon St., Boston
Talbot, Dr. Fritz B.	311 Beacon St., Boston
Tinkham, Mr. George H.	11 Pemberton Sq., Boston
Torbert, Dr. James R.	252 Marlboro St., Boston
Unity Lend-a-Hand Society (Aml.)	Lexington
Visiting Nurse Assn. (Aml.)	Great Barrington
Visiting Nurse Assn. (Aml.)	Springfield
Walker, Mr. George H.	1106 Boylston St., Boston
Young, Dr. J. Herbert	19 Baldwin St., Newton

Michigan

Alumnae Assn. of the Battle Creek Sanitarium and Hospital Training School for Nurses (Aml.)	Battle Creek
Babies' Milk Fund (Aml.)	924 Brush St., Detroit
Bedinger, Mr. George R., Gen. Sec'y. Children's Aid Society	Detroit
Bursley, Mrs. J. A.	1402 Hill St., Ann Arbor
Butzel, Mr. Fred	1012 Union Trust Bldg., Detroit
Children's Free Hospital Assn. (Aml.)	Detroit
Clinic for Infant Feeding (Aml.)	Grand Rapids
Cooley, Dr. T. B.	Kresge Medical Bldg., Detroit
Cowie, Dr. D. Murray, University of Michigan	Ann Arbor
DeBlois, Dr. Rhoda Farquharson	270 Woodward Ave., Detroit
Farrand Training School Alumnae Assn. (Aml.)	Detroit
Fischer, Dr. A. J.	Hancock
Ford, Miss Stella D.	1130 Woodward Ave., Detroit
Freund, Mrs. Hugo A.	56 Virginia Park, Detroit
Holmes, Dr. Arthur D.	270 Woodward Ave., Detroit
Hoobler, Dr. B. Raymond	707 Shirley Bldg., Detroit
Hosmer, Miss Margaret B.	51 Elliott St., Detroit
Jennings, Dr. Charles G.	435 Jefferson Ave., Detroit
Johnston, Dr. Collins H.	526 Metz Bldg., Grand Rapids
Kellogg, Dr. J. H., Supt. Battle Creek Sanitarium	Battle Creek
King, Mrs. Francis	Orchard House, Alma
Larned, Dr. J. J.	Metz Bldg., Grand Rapids
McCool, Mrs. Daniel	Grand Rapids
McGregor, Mrs. Tracy	239 Brush St., Detroit
Michigan Sanitarium and Benevolent Assn. (Aml.)	Battle Creek
Michigan State Nurses Assn (Aml.)	Petoskey
McDonald, Dr. Grant	David Whitney Bldg., Detroit
Martin, Dr. Walter F.	168 Ann Ave., Battle Creek
Michigan Children's Home Society (Aml.)	St. Joseph
Nichols, Mrs. J. Brooks	Detroit

Nicholson, Miss Florence, Sec'y. Copper County	
Graduate Nurses Assn. care Laurium Hospital.	Laurium
Osborne, Miss Mary E., Municipal Nurse, Board	
of Health	Flint
Parker, Mrs. Walter R.	285 Seminole Ave., Detroit
Parnall, Dr. C. G., Health Officer.	Jackson
Peterson, Dr. Reuben	University Hospital, Ann Arbor
Pope, Mrs. Willard	37 Putnam Ave., Detroit
Price, Mrs. O. J.	420 Capitol Ave., Lansing
Race Betterment Conference (Aml.)	Battle Creek
Rosenberger, Mrs. Oscar.	134 Lathrop Ave., Detroit
Ross, Dr. Worth, City Health Officer.	Detroit
Smith, Dr. Richard R.	Metz Bldg., Grand Rapids
Spencer, Dr. Ralph H.	93 Monroe Ave., Grand Rapids
Stevens, Mr. Henry Glover	615 Stevens Bldg., Detroit
Visiting Nurse Assn. (Aml.)	924 Brush St., Detroit
Woodbridge, Mr. A. C.	Cadillac Motor Co., Detroit

Minnesota

Adair, Dr. Fred L.	730 La Salle Bldg., Minneapolis
Chesley, Dr. A. J., Director Division of Preventable Diseases, State Board of Health.	Minneapolis
Christison, Dr. J. T.	Lowry Bldg., St. Paul
Crosby, Miss Caroline M.	1616 Washington Ave. N., Minneapolis
Doerr, Mrs. George V.	2611 Euclid Ave., Minneapolis
Helm, Mrs. Belle G.	1819 Girard Ave., Minneapolis
Huenekens, Dr. E. J.	803 Phys. & Sur. Bldg., Minneapolis
Infant Welfare Dept., Duluth Consistory Scottish Rite Masons (Aml.)	Masonic Temple, Duluth
Infant Welfare Society (Aml.)	923 Plymouth Bldg., Minneapolis
McLaren, Dr. Jennette M.	803 Lowry Bldg., St. Paul
Minnesota Public Health Assn. (Aml.)	Old Capitol, St. Paul
Nash, Mr. Willis K.	928 Plymouth Bldg., Minneapolis
Ramsey, Dr. Walter R.	Lowry Annex, St. Paul
Rowe, Dr. Olin W.	Fidelity Bldg., Duluth
St. Paul Baby Welfare Assn. (Aml.)	Wilder Bldg., St. Paul
Schultz, Dr. Fred E. W.	820 Donaldson Bldg., Minneapolis
Sedgwick, Dr. J. P., University of Minnesota	Minneapolis
Sommers, Mrs. H. S.	956 Portland Ave., St. Paul
Walker, Mrs. Archie Dean	419 Groveland Ave., Minneapolis
Williams, Mrs. Charles R.	2215 Pillsbury Ave., Minneapolis

Missouri

Bleyer, Dr. A. S.	706 N. Kingshighway, St. Louis
Fouke, Mrs. Philip B.	20 Westmoreland Place, St. Louis
Lippmann, Dr. Gustave	4668 Berlin Ave., St. Louis
Missouri State Nurses' Assn. (Aml.)	6251 Etzel Ave., St. Louis
Moody, Dr. Ellsworth E.	812 Frisco Bldg., Joplin
Nagel, Mrs. Charles	5320 Waterman Ave., St. Louis
Neff, Dr. Frank C.	900 Rialto Bldg., Kansas City
Ravenel, Dr. Mazyck P.	Univ. of Missouri, Columbia
St. Louis Children's Hospital (Aml.)	St. Louis
St. Louis Pediatric Society (Aml.)	3525 Pine St., St. Louis
Saunders, Dr. Edward W.	1601 S. Grand Ave., St. Louis
Schorer, Dr. Edwin H.	1010 Rialto Bldg., Kansas City
Schwarz, Dr. Henry T.	440 N. Newstead Ave., St. Louis
Tuttle, Dr. George M.	4917 Maryland Ave., St. Louis
Veeder, Dr. Borden, Washington University Medical School	St. Louis
Visiting Nurse Assn. (Aml.)	Vanol Bldg., St. Louis
Volker, Mr. Wm.	308 W. 8th St., Kansas City
Wilhelm, Dr. F. E.	1208 Wyandotte St., Kansas City
Zahorsky, Dr. John	1460 S. Grand Ave., St. Louis

Montana

*Benson, Mrs. T. J.	Fromberg
Child Welfare Association of Helena (Aml.)	Helena
Dean, Dr. Maria M., P. O. Box 544.	Helena
Montana State Assn. of Graduate Nurses (Aml.)	Great Falls
Rowe, Miss Bess M., College of Agriculture.	Bozeman
Wallin, Dr. Charles G.	Lewiston

* Deceased.

Nebraska

Christie, Dr. B. W.....	330 Bee Bldg., Omaha
McClanahan, Dr. H. M.....	468 Brandeis Bldg., Omaha

New Hampshire

Bennett, Dr. H. W. N.....	Manchester
Berlin Mills Company's District Nurse (Aml.).....	Berlin
Infant Aid Association (Aml.).....	1015 Chestnut St., Manchester
Woods, Prof. E. V., Dartmouth College.....	Hanover

New Jersey

Babies' Hospital (Aml.).....	437 High St., Newark
Babies' Hospital Milk Dispensary (Aml.).....	Newark
Baby Welfare Assn. of the Oranges (Aml.).....	East Orange
Baillinger, Mr. J. Dudley, Health Officer.....	City Hall, Orange
Board of Health (Aml.).....	Municipal Bldg., Montclair
Brown, Mrs. Thatcher M.....	Red Bank
Cammann, Mrs. Oswald N.....	40 North Ave., Elizabeth
Child Federation (Aml.).....	224 Guarantee Trust Bldg., Atlantic City
*Coit, Dr. Henry L.....	277 Mt. Prospect Ave., Newark
Dennis, Dr. L.....	49 Ridge St., Orange
Diet Kitchen of the Oranges (Aml.).....	124 Essex Ave., Orange
Doremus, Mrs. Wilbur.....	27 Lincoln Ave., Newark
Fleischman, Mrs. Charles M.....	Morristown
Free Public Library (Aml.).....	East Orange
Hall, Mr. John, Health Officer.....	East Orange
Hoffman, Mr. Fredk. L., Prudential Ins. Co.....	Newark
Howell, Mrs. J. W.....	211 Ballantine Parkway, Newark
Jersey City Division of Child Hygiene, Health Department (Aml.).....	Jersey City
Johnson, Dr. Bertha F., Director Division Child Hygiene and Nursing, State Department of Health.....	Trenton
Levy, Dr. Julius, Director Division of Child Hygiene, Health Department.....	Newark
McDonald, Dr. John.....	190 W. State St., Trenton
McEwen, Dr. Floy.....	299 Belleville Ave., Newark
Marvel, Dr. Philip.....	1616 Pacific Ave., Atlantic City
Merck, Mr. George.....	Llewellyn Park, West Orange
Miller, Dr. J. Milton.....	127 S. Illinois Ave., Atlantic City
Moore, Mrs. Paul.....	78 Madison Ave., Morristown
Montclair Board of Health (Aml.).....	Montclair
Murray, Dr. E. W.....	91 Washington Ave., Newark
New Jersey Congress of Mothers (Aml.).....	Haddonfield
Nicholson, Mrs. Wm. H., Jr.....	327 S. 2nd St., Millville
Peirce, Mrs. George H.....	38 Godfrey Road, Upper Montclair
Richards, Dr. L. J., Health Officer.....	Elizabeth
Roebbing, Mrs. Karl G.....	211 W. State St., Trenton
Stevens, Mr. Richard.....	Hoboken
Synnott, Dr. Martin J.....	34 S. Fullerton Ave., Montclair
Thompson, Mrs. Lewis S.....	Room 31, 2nd Nat. Bk. Bldg., Red Bank
Titsworth, Mr. Fredk. S., care C. G. Titsworth.....	Fidelity Trust Co., Newark
Tooker, Miss Mary R.....	East Orange
Visiting Nurse Assn. (Aml.).....	122 Magnolia Ave., Elizabeth
Warner, Dr. G. Van Voris.....	76 E. Front St., Red Bank
Wick, Miss Jennie G., Visiting Nurse, Organized Charities.....	Atlantic City
Wittpen, Mrs. H. O.....	125 Kensington Ave., Jersey City

New Mexico

Pond, Mr. Ashley.....	Buckman
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New York

Allen, Mrs. F. W.....	8 E. 72nd St., New York City
American Nurses' Assn. (Aml.).....	419 W. 144th St., New York City
Babies' Dairy Assn. (Aml.).....	8 W. 49th St., New York City
Babies' Hospital (Aml.).....	135 E. 55th St., New York City
Babies' Welfare Assn. (Aml.).....	Centre & Walker Sts., New York
Baby Welfare Committee of Utica (Aml.).....	Utica

* Deceased.

Baker, Dr. S. Josephine, Director Division of Child Hygiene, Health Dept.	New York City
Baker, Miss Charlotte S.	26 W. 55th St., New York City
Batavia Child Welfare Assn. (Aml.)	Batavia
Bateson, Mr. and Mrs. E. F.	115 E. 53rd St., New York City
Bayns, Mrs. Howard	830 Park Ave., New York City
Berwind Free Maternity Clinic (Aml.)	125 E. 103rd St., New York City
Biggs, Dr. Herman M., State Commissioner of Health	Albany
Binghamton Child Welfare Assn. (Aml.)	Binghamton
Bliss, Mrs. C. N., Jr.	678 Park Ave., New York City
Boardman, Mrs. Francis	Riverdale-on-Hudson
Bowen, Mrs. James	Syosset, Long Island
Brewster, Mr. George S.	51 Wall St., New York City
Brewster, Mr. J. H., Jr.	37 Wall St., New York City
Brooklyn Bureau of Charities District Nursing Committee (Aml.)	72 Schermerhorn St., Brooklyn
Brooklyn Children's Aid Society (Aml.)	72 Schermerhorn St., Brooklyn
Brooklyn Pediatric Society (Aml.)	Brooklyn
Brown, Mr. Robert K.	21 W. 127th St., New York City
Bureau of Health (Aml.)	Rochester
Button, Dr. Lucius L.	265 Alexander St., Rochester
Calvert, Mrs. John B.	201 W. 57th St., New York City
Camp Fire Girls (Aml.)	461 Fourth Ave., New York City
Canfield, Mrs. George F.	344 W. 72nd St., New York City
Carle, Mr. Robert W.	153 Water St., New York City
Children's Welfare Division, Bellevue Hospital Social Service Department (Aml.)	New York City
Civic Health League of Tonawanda (Aml.)	Tonawanda
Clark, Dr. A. S.	146 E. 71st St., New York City
Coolidge, Dr. Emelyn L.	850 West End Ave., New York City
Courtney, Ht. Rev. Fred.	157 E. 81st St., New York City
Crummins, Mrs. Thomas	176 E. 72nd St., New York City
Crocker, Mrs. George L., Jr.	169 E. 78th St., New York City
Degener, Mr. J. F., Jr.	354 4th Ave., New York City
Delano, Mr. Moreau	59 Wall St., New York City
Dennett, Dr. R. H.	120 E. 38th St., New York City
Denno, Dr. W. J.	16 Central Park West, New York City
Defenthaler, Mrs. C. R.	303 W. 91st St., New York City
District Nursing Assn. (Aml.)	181 Franklin St., Buffalo
Downes, Dr. W. A.	37 W. 71st St., New York City
Draper, Miss Martha L.	125 E. 36th St., New York City
Dunham, Mrs. Carroll	Irvington-on-Hudson
Dunham, Mrs. Edward K.	35 E. 68th St., New York City
Emerson, Dr. Haven	120 E. 62nd St., New York City
Fearey, Mrs. Morton L.	171 E. 80th St., New York City
Flagler, Mrs. Harry H.	32 Park Ave., New York City
Folks, Mr. Homer	105 E. 22nd St., New York City
Ford, Dr. C. E., Medical Director, General Chemical Co.	25 Broad St., New York City
Fox, Mrs. Charles N.	130 W. 57th St., New York City
Fox, Mr. Hugh F.	New York City
Frankel, Dr. Lee K., Metropolitan Life Ins. Co.	New York
Freeman, Dr. Rowland G.	211 W. 57th St., New York City
Franczak, Dr. F. E., Health Commissioner	Buffalo
Geer, Mrs. Langdon	301 Lexington Ave., New York City
Geller, Mrs. Fred.	Bronxville
Gilder, Mrs. Rodman	898 Madison Ave., New York City
Gillett, Dr. J. R.	248 Fourth Ave., Kingston
Gold, Mr. Cornelius B.	45 W. 35th St., New York City
Goodrich, Miss Annie W., Columbia University	New York City
Grant, Mrs. U. S., 3rd	998 Fifth Ave., New York City
Hammond, Mrs. John Hays	903 Park Ave., New York City
Harper, Dr. Paul L.	355 State St., Albany
Hart, Dr. Hastings H., Russell Sage Foundation	New York City
Hansis, Mrs. Bessie A., Ed. Sec'y. Nat. Org. Public Health Nursing	156 5th Ave., New York City
Hawkins, Dr. Norman L.	Watertown
Haynes, Dr. Royal S.	213 W. 70th St., New York City
Hazard, Mrs. Fred. Rowland	Syracuse
Helman, Dr. Henry	30 W. 88th St., New York City
Henry Street Settlement (Aml.)	265 Henry St., New York City
Herrman, Dr. Charles	250 W. 88th St., New York City
Hess, Dr. Alfred F.	16 W. 86th St., New York City

Higgins, Mr. C. M.	101 9th Ave., Brooklyn
Hill, Mr. Nicholas S., Jr.	100 William St., New York City
Hoe, Mrs. Richard M.	11 E. 71st St., New York City
Holden, Mrs. Edwin B.	323 Riverside Drive, New York City
Holt, Dr. L. Emmett	14 W. 55th St., New York City
Homer, Madame Louise	30 W. 74th St., New York City
Hoopes, Mr. Maurice	Glens Falls
Hornblower, Mrs. G. S.	755 Park Ave., New York City
Howe, Miss Fanny R., R. N.	438 W. 116th St., New York City
Hoyt, Mrs. John Sherman	101 E. 65th St., New York City
Hoyt, Mrs. G. L.	20 Washington Sq., New York City
Infants and Child's Welfare League (Aml.)	Amsterdam
A. Jacobi Hospital for Children (Aml.)	New York City
Jacobi, Dr. Abraham	19 E. 47th St., New York City
James, Dr. Walter B.	70 E. 70th St., New York City
Kellogg, Mrs. F. Leonard	118 E. 70th St., New York City
Kellogg, Mrs. Morris	22 E. 63rd St., New York City
Kerley, Dr. Charles G.	132 W. 81st St., New York City
Kosmak, Dr. George W.	23 E. 93rd St., New York City
Kridel, Miss Elsie W.	135 Central Park West, New York City
La Petra, Dr. L. E.	113 E. 61st St., New York City
Lambert, Mrs. A. V. S.	168 E. 71st St., New York City
Leo-Wolf, Dr. Carl G.	481 Franklin St., Buffalo
Liebmann, Mr. Alfred	525 Park Ave., New York City
Lynch, Mr. Fredk	70 Fifth Ave., New York City
McLean, Mrs. Stafford	Southampton, L. I.
Macy, Dr. Mary S.	101 W. 80th St., New York City
Markoe, Dr. James W.	12 W. 50th St., New York City
Marling, Mr. A. G.	35 W. 47th St., New York City
Mathesius, Mrs. Frederick, Jr.	255 W. 91st St., New York
Metropolitan Life Ins. Co., Industrial Dept. (Aml.)	New York City
Mitchell, Mrs. Wesley C.	37 W. 10th St., New York City
Moffett, Dr. Rudolph D.	830 Park Ave., New York City
Morrill, Mrs. Edwin G.	Bedford Hills
Morris, Mrs. Ray	535 Park Ave., New York City
Municipal Mothers Club of Gloversville (Aml.)	10 Second Ave., Gloversville
National Committee for the Prevention of Blindness (Aml.)	130 E. 22nd St., New York City
National League of Nursing Education (Aml.)	420 W. 118th St., New York City
National Organization for Public Health Nurs- ing (Aml.)	600 Lexington Ave., New York City
New York A. I. C. P. (Aml.)	105 E. 22nd St., New York City
New York Diet Kitchen Assn. (Aml.)	33 W. 42nd St., New York City
New York Milk Committee (Aml.)	105 E. 22nd St., New York City
New York State Nurses' Assn. (Aml.)	New York City
Niagara Falls Child Welfare Assn. (Aml.)	Niagara Falls
Nichols, Mr. Acosta	25 Broad St., New York City
Nutting, Miss M. Adelaide, Teachers' College	Columbia University, New York City
Ogden Mr. W. L.	73 Pierrepont St., Brooklyn
Olcott, Mrs. E. E.	322 W. 75th St., New York City
Parker, Miss A. Mabel	105 Herkimer St., Brooklyn
Page, Dr. Agnes E.	359 State St., Albany
Parker, Mrs. J. S.	Syosset, Long Island
Parker, Mr. J. S.	Syosset, Long Island
Parry, Dr. Angenette	740 Madison Ave., New York City
Perkins, Mrs. George W.	Riverdale-on-Hudson
Pierson, Dr. Frederick H.	1720 W. Genessee St., Syracuse
Pisck, Dr. Godfrey R.	36 E. 62nd St., New York City
Potter, Dr. Phillip S.	428 Physicians Bldg., Syracuse
Pratt, Mrs. Charles M.	241 Clinton St., Brooklyn
Frentiss, Mrs. J. H.	23 E. 69th St., New York City
Freston, Mrs. Louis	Mt. Kisco
Hennert, Miss Elizabeth, R. N.	State Dept. of Health, Albany
Rice, Mrs. Wm. B.	17 W. 16th St., New York City
Rimer, Dr. Edward S.	91 Bard Ave., West New Brighton
Riverdale Health League (Aml.)	Riverdale-on-Hudson
Robertson, Mr. R. H.	117 E. 38th St., New York City
Robinson, Mrs. T. D.	Mahaque Farms, Mohawk
Roosevelt, Mrs. Franklin H.	49 E. 65th St., New York City
Roosevelt, Mrs. H. L.	301 Lexington Ave., New York City
Rosenbaum, Mr. S. G.	207 W. 24th St., New York City
Rucker, Dr. Augusta	150 E. 35th St., New York City
Russell, Mrs. Marshall	Southampton, L. I.

MEMBERSHIP LIST

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Russell, Miss Martha M.	447 W. 59th St., New York City
Sage, Mrs. Isabel W.	Menands Road, Albany
Sands, Dr. Georgiana	Port Chester
Schiff, Mr. Jacob H.	Kuhn, Loeb & Co., New York City
Schneider, Mr. Francis, Jr.	130 E. 22nd St., New York City
School for Mothers (Afil.)	735 Broadway, Albany
Schwarz, Dr. Herman	50 E. 91st St., New York City
Seward, Mr. W. R.	218 Alexander St., Rochester
Shaw, Dr. H. L. K., Director Division of Child Hygiene, State Department of Health.	Albany
Shippen, Miss Ethel	301 Lexington Ave., New York City
Simon, Mrs. R. E.	320 W. 87th St., New York City
Slade, Mr. Francis L.	115 Broadway, New York City
Smith, Dr. C. H.	257 W. 74th St., New York City
Smith, Dr. Cornell N.	312 Hawley Ave., Syracuse
Southworth, Dr. Thomas S.	807 Madison Ave., New York City
Stern, Mrs. E. H.	150 W. 79th St., New York City
Stewart, Mrs. J. H.	Cold Spring Harbor, L. I.
Stillman, Dr. E. G.	17 E. 72nd St., New York City
Straight, Mrs. Willard	Old Westbury, L. I.
Straus, Mr. Nathan	27 W. 72nd St., New York City
Stires, Dr. E. D., D. D.	3 W. 53rd St., New York City
Strauss, Mr. Frederick, care J. V. W. Seligman & Co.	New York City
Sub-Committee for Mothers and Infants, N. Y. State Charities Aid Assn. (Afil.)	105 E. 22nd St., New York City
Taylor, Mrs. James B.	903 Park Ave., New York City
Teele, Mr. Trevor	109 Walnut St., Saratoga Springs
Terry, Dr. C. E., care The Delinctor	Butterick Publishing Co., New York City
Tiemann, Miss Edith W.	67 Midwood St., Brooklyn
Titus, Dr. H. W.	102 Central Ave., New Rochelle
Van Beuren, Mr. T. F., Jr.	812 Park Ave., New York City
Vander Bogert, Dr. Frank	111 Union St., Schenectady
Van Ingen, Mrs. E. H.	9 E. 71st St., New York City
Van Ingen, Miss Anne H.	9 E. 71st St., New York City
Van Ingen, Dr. Philip	9 E. 71st St., New York City
Wakeman, Dr. Arthur E.	72 Schermerhorn St., Brooklyn
Waldron, Dr. Louis V., Director Division of Child Hygiene, Health Dept.	Yonkers
Wallace, Dr. Chas. Iton	507 Madison Ave., New York City
Walter, Mr. Wm. I.	52 Broadway, New York City
Waters, Miss Ysabella	174 S. Goodman St., Rochester
Weston, Miss Alice B., R. N.	717 Hatch Ave., Woodhaven, L. I.
White, Mrs. Alex. M.	52 Remsen St., Brooklyn
White, Miss Frances E.	2 Pierrepont Place, Brooklyn
Wilcox, Dr. Herbert B.	159 E. 70th St., New York City
Willcox, Prof. W. F.	Cornell University, Ithaca
Williams, Mrs. L. B., R. N., Supt. Child Welfare Assn.	Batavia
Williams, Dr. Linsly L., State Deputy Commissioner of Health	884 Park Ave., New York City
Wiseman, Dr. Joseph R.	705 E. Genesee St., Syracuse
Witherby, Mrs. E. C.	P. O. Box 2, Syracuse
Wood, Dr. Thomas D., Columbia University	New York City

North Carolina

Hunter, Mrs. Robert	Pinehurst
Rankin, Dr. W. S., Sec'y. State Board of Health	Raleigh
State Board of Health (Afil.)	Raleigh

North Dakota

Sorkness, Dr. Paul, Health Officer	Fargo
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Ohio

Abbott, Mr. Gardner T.	1215 Williamson Bldg., Cleveland
Babies' Dispensary and Hospital (Afil.)	2500 E. 35th St., Cleveland
Baldwin, Mrs. A. D.	Lake Shore Drive, Cleveland
Baldwin, Mr. A. D.	1025 Garfield Bldg., Cleveland
Bentley, Mrs. Robert	718 Wick Ave., Youngstown

Bolt, Dr. Richard A., Chief Bureau of Child Hygiene, Board of Health.....	Cleveland
Bill, Dr. Arthur.....	2082 E. 96th St., Cleveland
Bishop, Dr. R. H., Jr., Commissioner of Health.....	City Hall, Cleveland
Board of Health (Aml.).....	Cleveland
Brown, Mr. Alex. C.....	1974 E. 71st St., Cleveland
Calfee, Mr. H. M.....	1608 Williamson Bldg., Cleveland
Children's Clinic of the Ohio-Miami Medical College (Aml.).....	124 W. McMicken Ave., Cincinnati
Cleveland Day Nursery and Free Kindergarten Assn. (Aml.).....	250 E. 96th St., Cleveland
Cushing, Mrs. Edward F.....	4712 Euclid Ave., Cleveland
Cushing, Mrs. Wm.....	2908 Euclid Ave., Cleveland
Devereux, Mrs. M. F.....	Nutwood Farms, Wickliffe
Eisenman, Mr. Charles.....	1009 New England Bldg., Cleveland
Feiss, Mrs. Paul L.....	11452 Euclid Ave., Cleveland
Frost, Dr. W. H., U. S. Public Health Service.....	Third and Kilgour, Cincinnati
Furrer, Dr. Arnold F.....	1110 Euclid Ave., Cleveland
Galt, Mrs. Wm., Jr.....	Glendale, Cincinnati
Garfield, Mrs. Abram.....	Lake Shore Blvd., Cleveland
Garfield, Mr. Abram.....	Lake Shore Blvd., Cleveland
Gerstenberger, Dr. H. J.....	1940 Noble Road, Cleveland
Gitchell, Miss Katherine.....	Akron
Goehle, Dr. Otto L.....	465 Rose Bldg., Cleveland
Graduate Nurses' Assn. (Aml.).....	2100 E. 40th St., Cleveland
Grandin, Mrs. G. W.....	Magnolia Drive, Cleveland
Greene, Mrs. Edward B.....	10831 Magnolia Drive, Cleveland
Greene, Mr. Edward B.....	Cleveland Trust Co., Cleveland
Hamann, Dr. C. A.....	416 Osborn Bldg., Cleveland
Hanna, Mrs. H. M.....	2417 Prospect Ave., Cleveland
Hanna, Mr. H. M.....	2417 Prospect Ave., Cleveland
Hanna, Mrs. Howard M., Jr.....	Station H, Cleveland
Hanson, Mr. J. M., Sec'y. Charity Organization Society.....	Youngstown
Harvey, Mr. M. C.....	215 Cuyahoga Bldg., Cleveland
Harvey, Mr. P. W.....	9619 Lake Shore Blvd., Cleveland
Herrick, Mrs. F. C.....	11318 Euclid Ave., Cleveland
Hollingshead, Dr. Frances M., Director Division of Child Hygiene, State Board of Health.....	Columbus
Hoover, Dr. C. F.....	702 Rose Bldg., Cleveland
Hord, Mrs. John.....	Cleveland
Howell, Dr. J. Morton.....	Reibold Bldg., Dayton
Instructive District Nursing Assn. (Aml.).....	276 E. State St., Columbus
Ireland, Mrs. Robert L.....	Lake Shore Blvd., Cleveland
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